

# TC-K8/K8B <sup>300</sup>

TC-K8 (Panel: Silver)  
Canadian Model

TC K8B (Panel: Black)  
E Model  
AEP Model  
UK Model



(TC-K8B)

## STEREO CASSETTE DECK

### SPECIFICATIONS

**Power Requirements:** 110, 120, 220, 240V ac, 50/60 Hz  
(E, AEP, UK model)  
120V ac, 60 Hz (Canadian model)

**Power Consumption:** 35W (E, AEP, UK model)  
32W (Canadian model)


**AC Outlet:** Unswitched 300W total (Canadian model)

**Dimensions:** Approx. 430 (w) x 170 (h) x 310 (d) mm  
17 (w) x 6<sup>3</sup>/<sub>4</sub> (h) x 12<sup>1</sup>/<sub>4</sub> (d) inches  
(E, AEP, UK model)  
460 (w) x 170 (h) x 310 (d) mm  
18<sup>1</sup>/<sub>8</sub> (w) x 6<sup>3</sup>/<sub>4</sub> (h) x 12<sup>1</sup>/<sub>4</sub> (d) inches  
(Canadian model)


Including projecting parts and controls

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#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLODÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY.

**MODEL IDENTIFICATION:** See page 50

**Weight:** Approx. 11 kg, 24 lb 5 oz (E, AEP, UK model)  
11.8 kg, 26 lb 1 oz (Canadian model)

**Track:** 4-track 2-channel stereo

**Fast Forward and Rewind Time:** Approx. 70 seconds with Sony cassette C-60

**Frequency Response:** DOLBY NR OFF  
With Ferri-Chrome cassette  
20–18,000 Hz (NAB)  
30–16,000 Hz ±3 dB (NAB)  
30–16,000 Hz (DIN)  
With chromium dioxide cassette  
20–17,000 Hz (NAB)  
30–15,000 Hz ±3 dB (NAB)  
30–15,000 Hz (DIN)  
With standard cassette  
20–15,000 Hz (NAB)  
30–13,000 Hz (DIN)

**Wow and Flutter:** 0.045% WRMS  
± 0.12% (DIN)

**S/N Ratio:** DOLBY NR OFF  
With Ferri-Chrome cassette  
60 dB at peak level (NAB)  
59 dB (DIN, 1975 rev.)  
With chromium dioxide cassette  
56 dB at peak level (NAB)  
DOLBY NR ON  
Improved by 5 dB at 1 kHz, 10 dB above 5 kHz

**Total Harmonic Distortion:** 1.3%

— Continued on page 2 —

# SONY®

## SERVICE MANUAL

# TC-K8/K8B

**Record Bias Frequency:** 105 kHz

**Inputs:** MIC (two phone jacks)  
Sensitivity: 0.2 mV (-72 dB)  
for low-impedance microphone  
LINE IN (stereo binaural jack, two phono jacks)  
Sensitivity: 0.06 V (-22 dB)  
Impedance: 100 k $\Omega$

**Outputs:** LINE OUT (two phono jacks)  
Normal level: 0.775 V (0 dB)  
Load impedance: 100 k $\Omega$   
with LINE OUT level control at "10"  
suitable load impedance more than 10 k $\Omega$   
HEADPHONES (binaural jack)  
output level 3.9 mV to 0.12 V (-46 to -16 dB)  
at load impedance 8  $\Omega$

**Record/Playback Jack:** Input impedance less than 10 k $\Omega$   
Output impedance less than 10 k $\Omega$

**Remote Control Connector:** 11-pin connector

## Liquid Crystal peak program meters

**Response Range:** -40 dB to +5 dB

**Frequency Response:** 20 Hz-20,000 Hz  $\pm$  1.5 dB

**Response Time:** 1 millisecond

**Decay Time:** 750 milliseconds (0 dB to -20 dB)

**Overshoot:** None

**Indicator Elements:** 64 elements for each channel

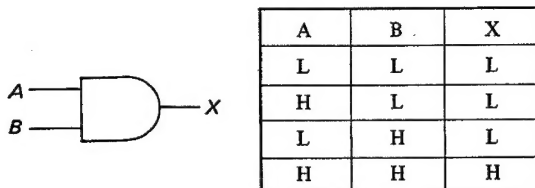
0 dB = 0.775 V

## SECTION 1 OUTLINE

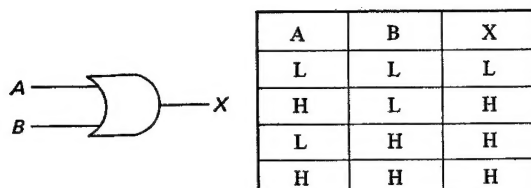
### Circuit Description

A major feature of the TC-K8/K8B is the liquid crystal peak program meter which display input and output signals in analog bar graph form. Some of the basic logic circuits employed in the meter circuit:

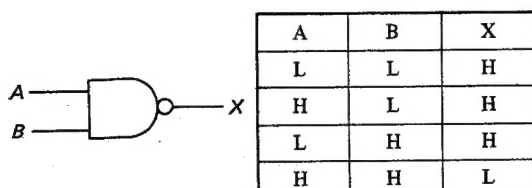
**AND circuits:** "H" output obtained only when all inputs are "H".



**OR circuits:** "H" output obtained when at least one input is "H".



**NAND circuits:** "L" output obtained when all inputs are "H". NAND circuits are formed by combining an AND circuit with a negating circuit.



### Liquid Crystal Peak Program Meter Drive Circuits

#### 1. Basic Frequency Generator Circuits for Liquid Crystal Drive (See Figs. 1 & 2.)

The signal generated by the multivibrator consisting of IC7-4, 7-5, C006, and R012 is passed through inverter IC7-6 to produce waveform **A**. This signal is then divided into 7 different waveforms **B** - **H** by IC6.

##### a) Clock pulse

Clock pulses are reference signals employed to show the converted time as the number of pulses. In this cassette deck, waveform **B** serves as the clock pulse. But waveforms **A** and **B** are combined in the IC12-1 AND circuit to obtain a delay of half a clock pulse. This output (waveform **I**) is applied to CX762 to ensure reliable shift of the A/D converted serial signal.

##### b) Strobe pulse

The IC6 output waveforms **B** to **H** are applied to IC13 for a NAND operation (waveform **J**). The strobe pulse is then formed by adding the output waveform **K** from the IC7-1, R026, C007 delay circuit to the IC13 output waveform **J** in an AND operation. This strobe pulse signal (waveform **L**) is applied to CX762 and used as a reset signal.

##### c) Drive pulse

IC6 output (waveform **H**) is used as an LCD drive signal, being applied to CX762 via inverter IC8.

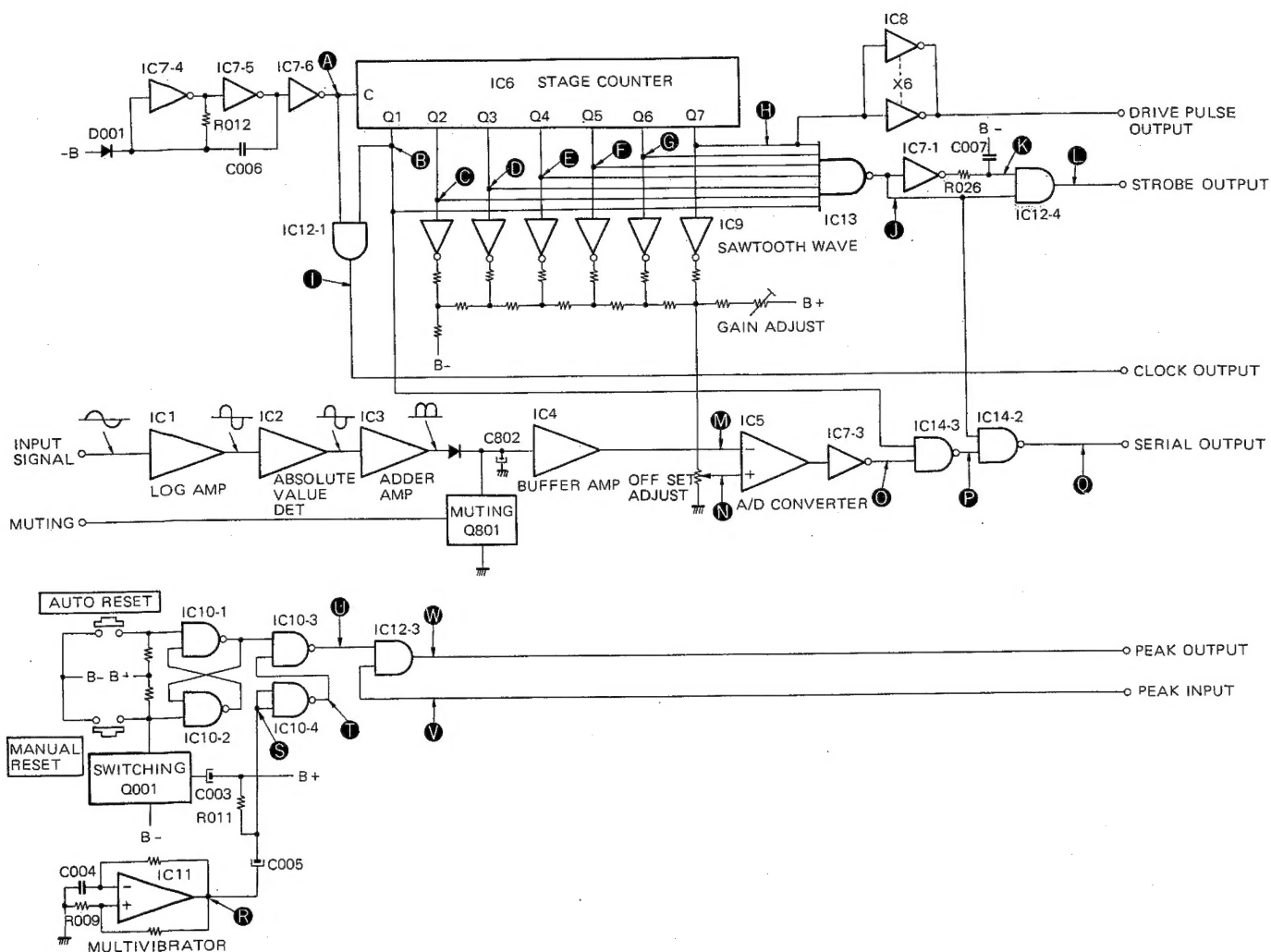


Fig. 1

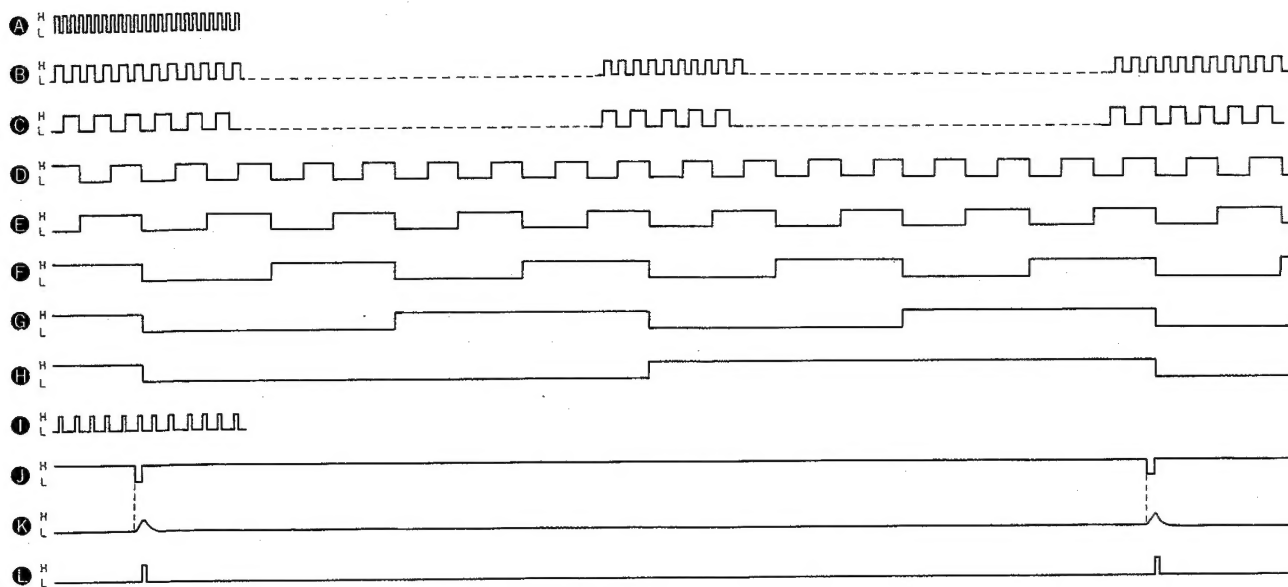


Fig. 2

## 2. A/D Converter Serial Signal Generator Circuit (See Figs. 1 & 3.)

The input signal is compressed according to a logarithmic function (in IC1) in order to expand the meter scale range. Then in order to detect both positive and negative peak levels in the input signal, the signal is rectified by the IC2 and IC3 full-wave rectifier, and charged up on C802 to convert the signal to DC current. (Levels a, b, and c in waveform- **M** correspond to the level variation in the input signal). The IC6 output waveforms **C** to **H** are applied to IC9, passed through resistors, and then combined to form a comparator sawtooth wave (waveform **N**) which is compared with waveform **M** in the A/D converter IC5. The input signal level variations are consequently converted into pulse widths ( **Q** waveforms). The **Q** waveforms are passed through the in-

verter, and combined with the clock pulses (waveform **B**) by a NAND operation, resulting in the input signal level variation subsequently being expressed in terms of the number of clock pulses ( **P** waveforms serial signal). The IC13 NAND output (waveform **J**) is combined with the serial signals ( **P** waveforms) in another NAND operation, thereby maintaining the left hand end LCD on constantly. This precaution ensures that the display does not go off altogether when there is no input signal, and also eliminates the effects due to the drift at low level.

### \* Drive pulse

Since the IC8 inverter operates and the output current of the "H" and "L" levels is equal, the potential difference becomes zero and this ensures longer operational life of the liquid crystal.

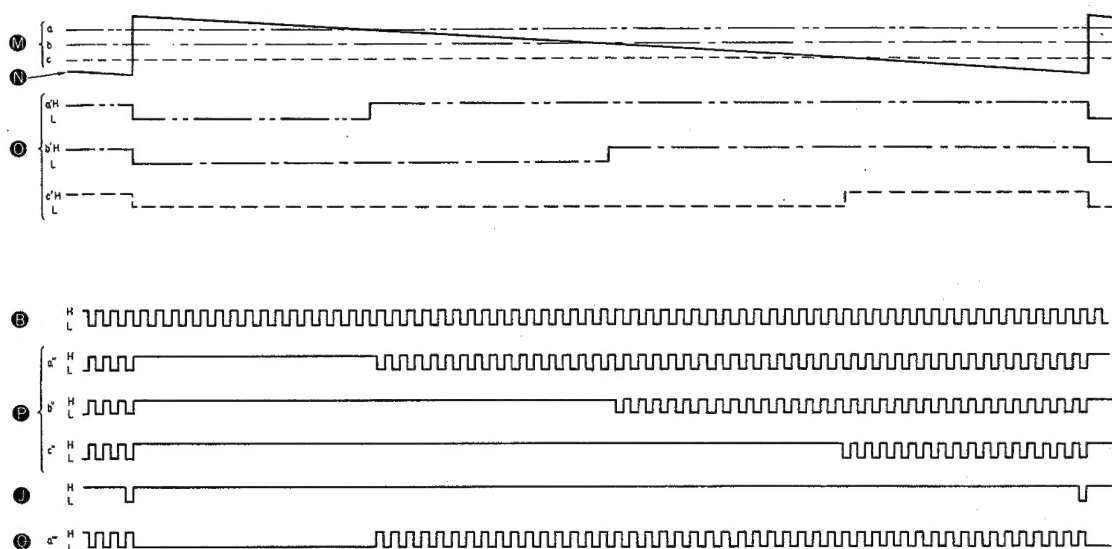
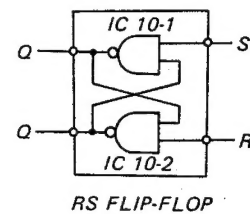


Fig. 3

3. Meter Mode Switching (See Figs. 1, 4 & 5)  
IC10-1 and IC10-2 constitute an RS flip-flop. When the power supply switch is turned on, Q001 turns on, and the input terminal of IC10-2 is grounded while C003 is being charged up. Therefore an "L" level signal is generated on the IC10-1 output terminal. When the MANUAL RESET switch is also turned on, an "L" level signal is generated on the IC10-1 output terminal in the same way. When the AUTO RESET switch is turned on, an "L" level signal is applied to the



Output Power		Q	Q
S	R		
L	H	H	L
H	L	L	L

Fig. 4

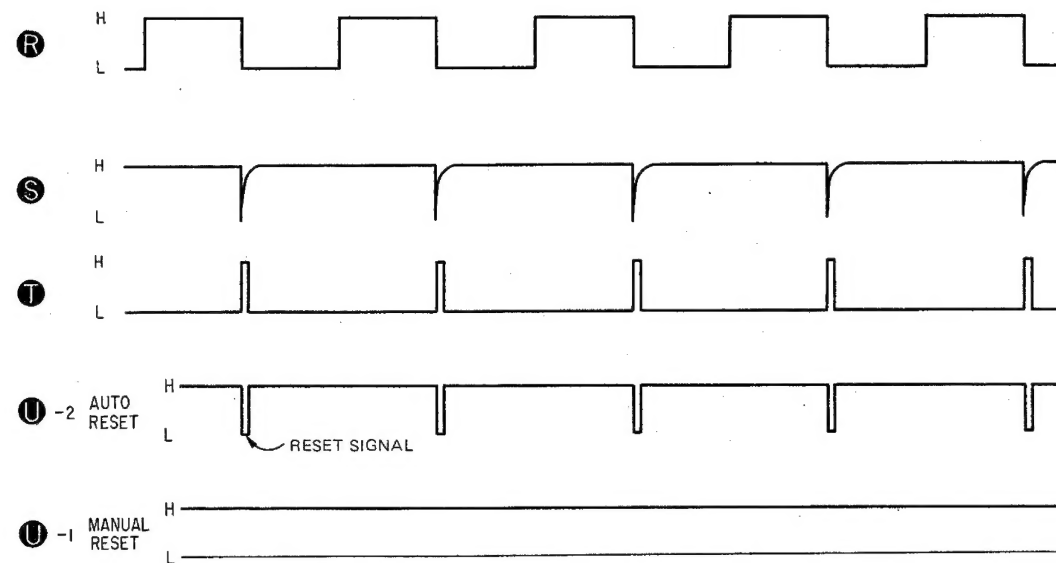


Fig. 5

input terminal of IC10-1, resulting in the generation of an "H" level signal on the IC10-1 output terminal (See Fig. 4.) The signal (waveform R) generated in the multivibrator (IC11, C004, and R009) is differentiated by C005 and R011 (waveform S). The waveform S is then rectified by IC10-4 (waveform T), and combined with the IC10-1 output signal in a NAND operation (waveform U). The peak signal reset pulse is generated when the AUTO RESET switch is on, but not when the MANUAL RESET switch is on.

### Liquid Crystal

The TC-K8B features the liquid crystal peak program meter. Although liquid crystal comes in various different types, the liquid crystal molecules employed here are long and slender, and line up in the direction of an electric field. By orienting this liquid crystal parallel to the surface of a glass plate, and then setting up 2 such glass plates to be at right angles to a light

beam, the liquid crystals within the liquid crystal cell line up as shown in Fig. 6. When 2 light polarizing glass plates are added to both sides of the cell, but no voltage applied across the cell, a light beam passed through polarizing plate A is rotated through 90° as it passes through the cell, and passed out again through polarizing plate B.

#### 1. Liquid Crystal Cell when No Voltage is Applied.

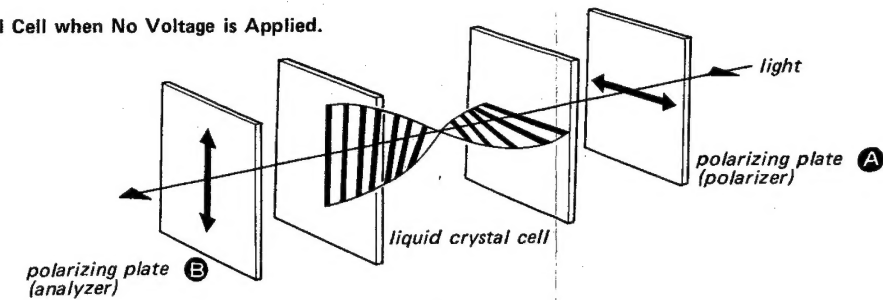


Fig. 6

When a voltage is then applied across the crystal cell, the liquid crystals change direction and align perpendicular to the surface of the glass plates (as shown

in Fig. 7.) The polarized light is no longer rotated through 90°, and consequently fail to pass through polarizing plate B. Therefore, the cell appears dark.

#### 2. Liquid Crystal Cell with Voltage Applied.

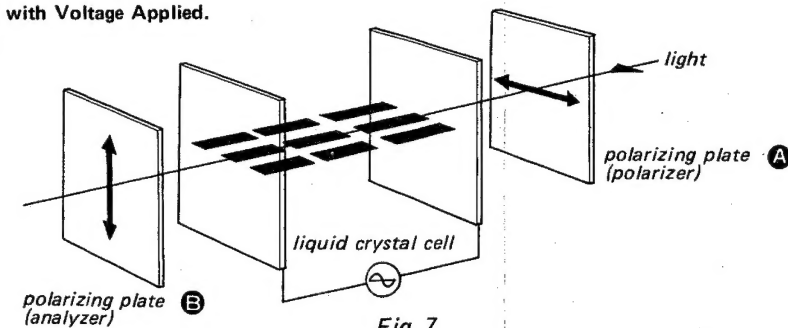


Fig. 7

However, rather than indicating peak level by the change between light and dark, the peak program meter employed in the TC-K8/K8B feature a color display. This is achieved by using a color polarizing plate on the light source side. All colors except the desired color polarized by polarizing plate (A), resulting in this non-polarized color passing through polarizing plate (B) when all other colors are blocked out.

The glass plates employed in this cell are made coated by a transparent, electrically conductive material known as nesa film (which contains indium oxide). The coating is etched to form meter scale. The two plates are separated by a spacing support, and the space between two plates is filled with liquid crystal. The voltage is applied to the electrodes mounted on the inside of the glass plates, and when viewed from the front, the meter display is colored.

#### 3. Liquid Crystal Cell Structure

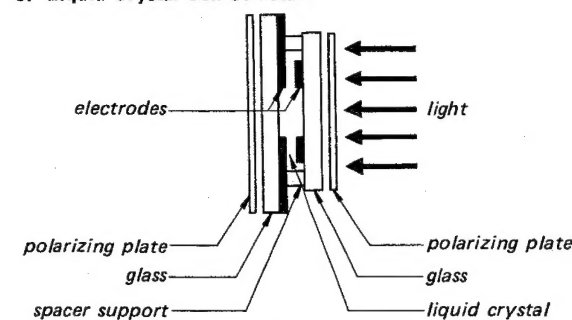
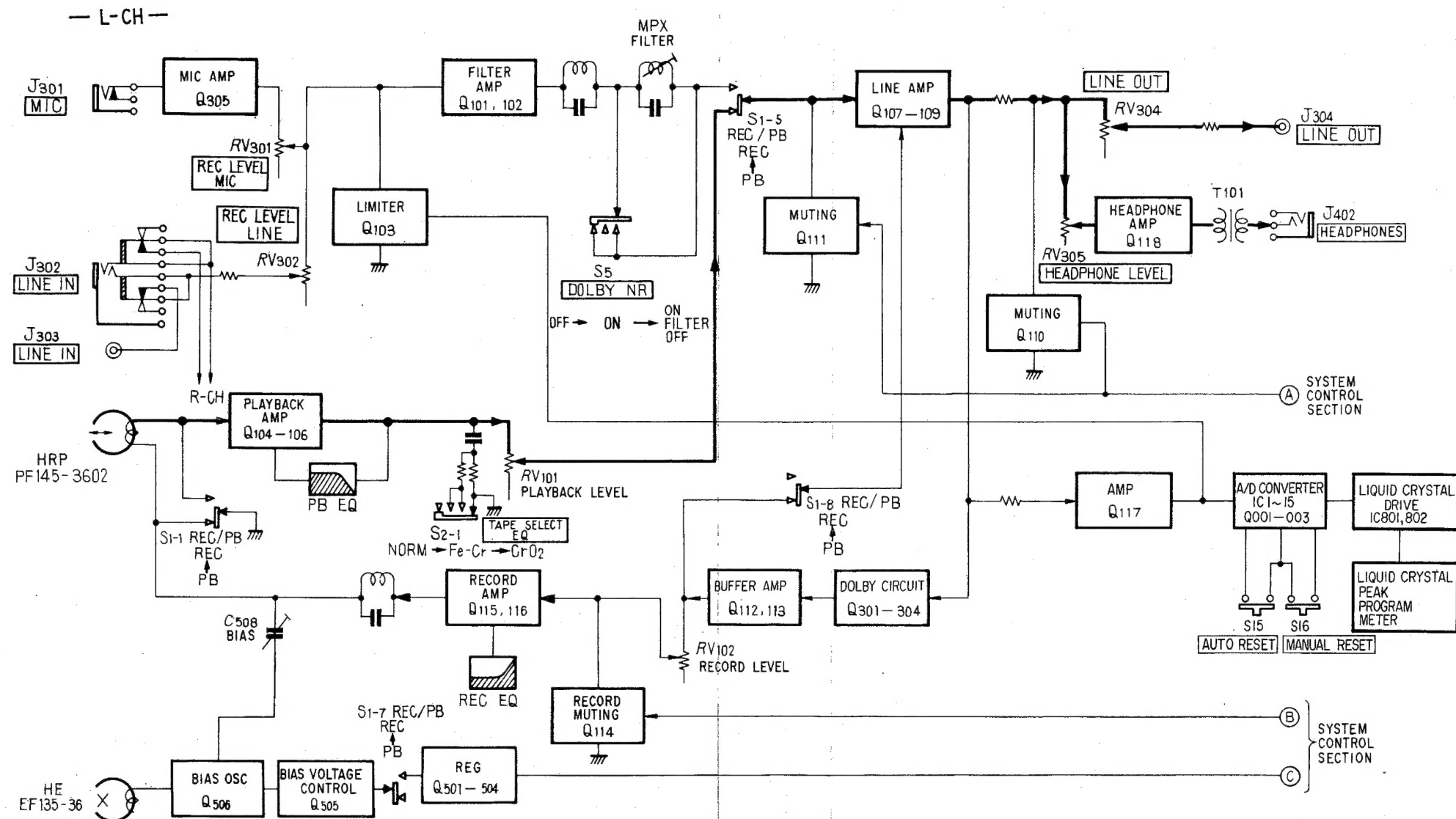


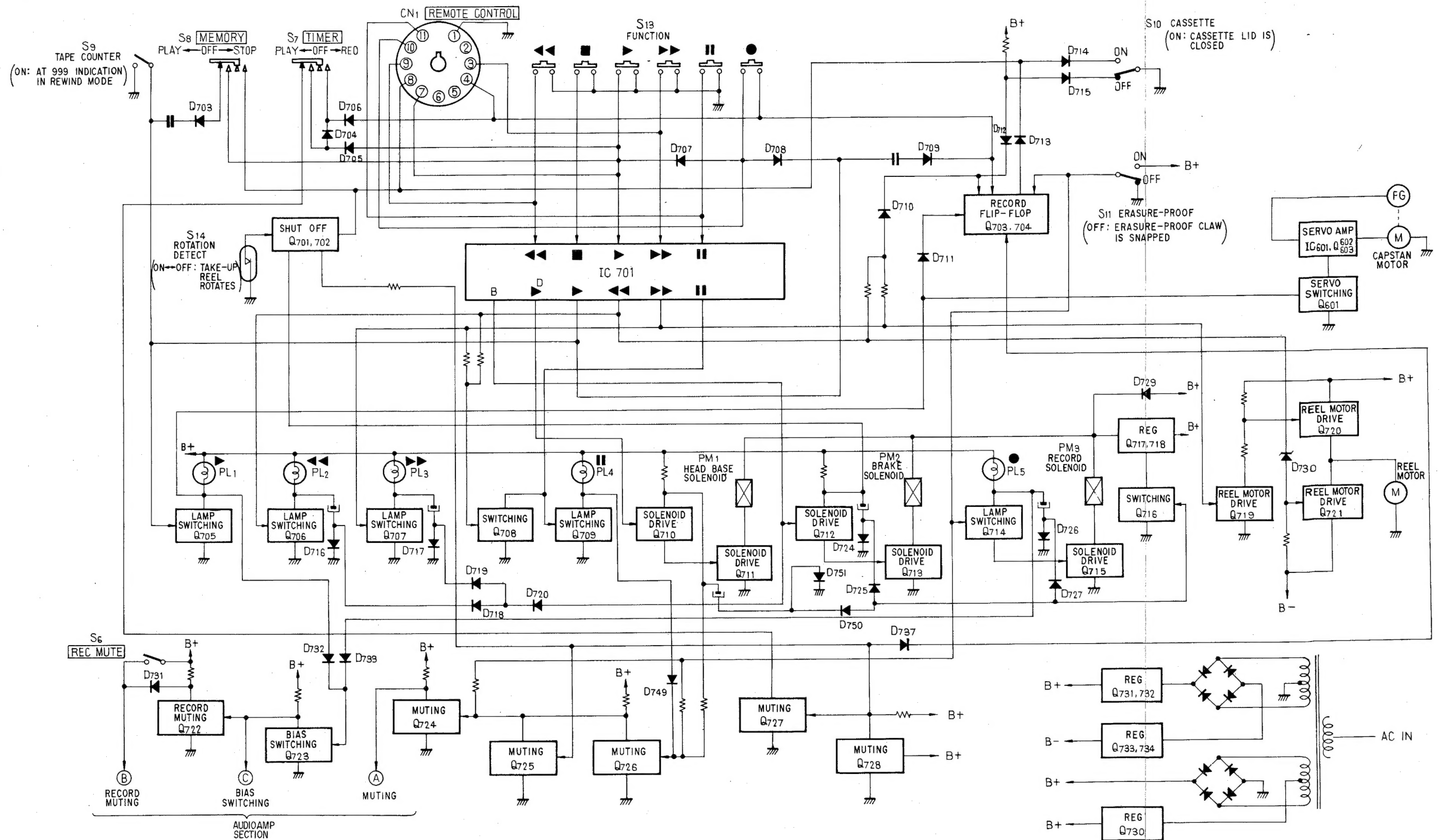
Fig. 8

The TC-K8/K8B program meter consist of 64 separate elements in both left and right channels. The letters L and R also employ liquid crystal display. The colored polarizing plate is blue below the 0 dB level, and red above it. A fluorescent lamp has been employed as the light source because of the wide light spectrum required for the color display.

1. BLOCK DIAGRAMS — Audio Amp Section —



1. BLOCK DIAGRAMS - System Control Section -



### MOS IC HANDLING PRECAUTIONS

Since the insulation resistance of the oxidized film of MOS IC is generally very high and the film is extremely thin, the static electric charge on clothing or the body will cause the insulation to breakdown. Observe the following precautions when replacing this IC:

1. Maintain all the pins at the same potential by wrapping the IC in aluminum foil or other similar material. (See Fig. 1)

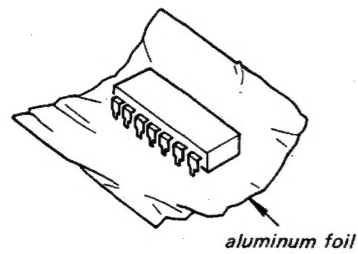


Fig. 1

2. Ground the work bench for static electricity. (See Fig. 2) (Place a sheet of aluminum onto the bench.)

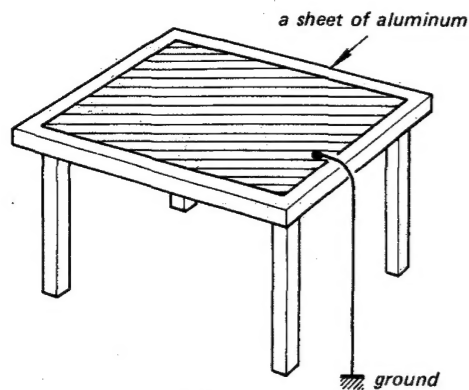


Fig. 2

3. If necessary to touch the MOS IC direct, grasp the IC at a point other than the pins. Moreover, wear cotton gloves or a cotton finger sack. (Gloves made of nylon or other similar material are undesirable. The static electricity on your body can be easily discharged by wrapping a ground wire around your wrist.)

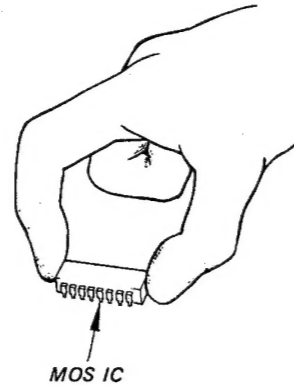


Fig. 3

4. Short all the pins of the IC before beginning any work. Also ground the soldering iron.

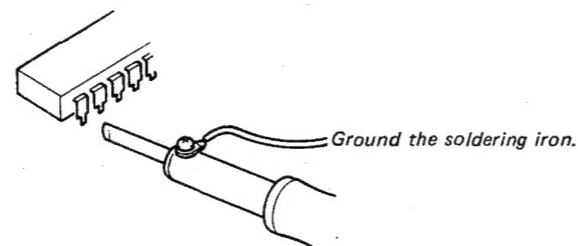
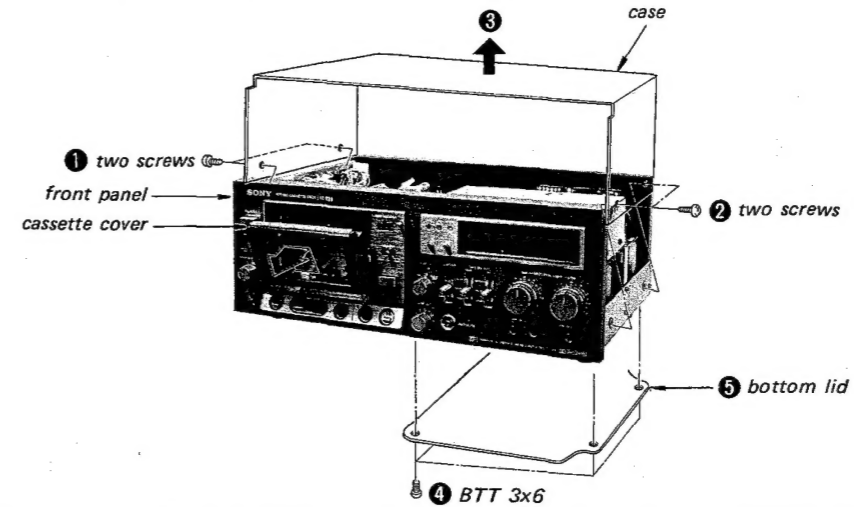


Fig. 4

Note: Follow the disassembly procedure in the numerical order given.

### CASE AND BOTTOM LID REMOVAL

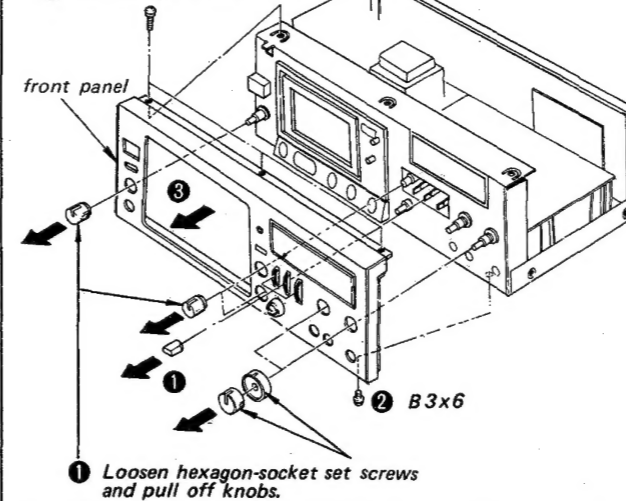
- Note: 1. Checkouts on the amp, system control and servo amp boards can be made after case removal.  
2. Repair on the amp board (except for switches) can be made after bottom lid removal.



### FRONT PANEL REMOVAL

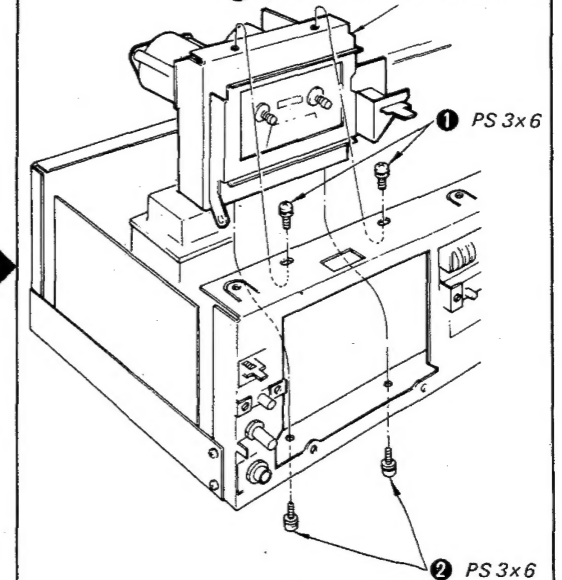
- Note: Replacements of jacks and variable resistors can be made after front panel removal.

- 2 Six screws, B 3x6



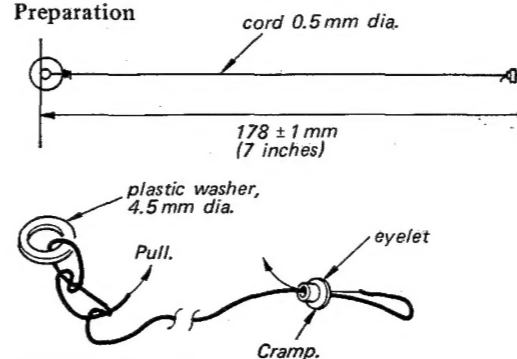
### TAPE RECORDER DECK REMOVAL

- 3 tape recorder deck mechanism

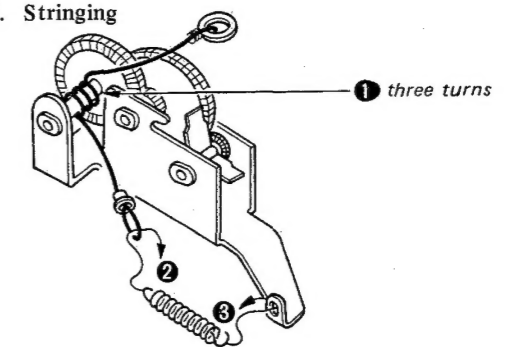


### STRINGING OF CASSETTE HOLDER DAMPER

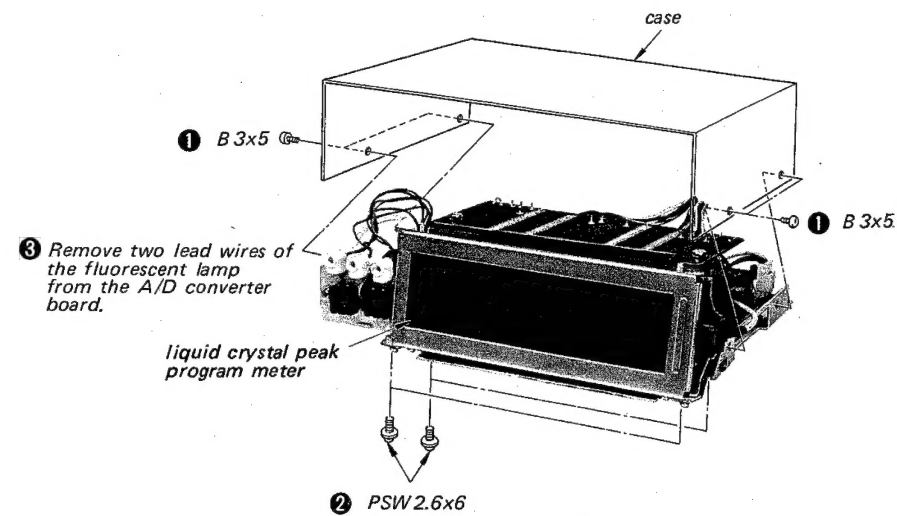
1. Preparation



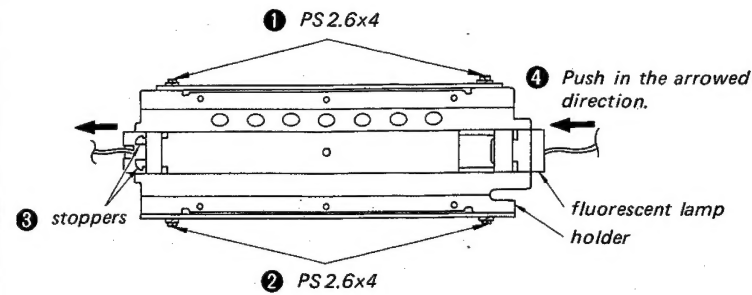
2. Stringing



### LIQUID CRYSTAL PEAK PROGRAM METER REMOVAL



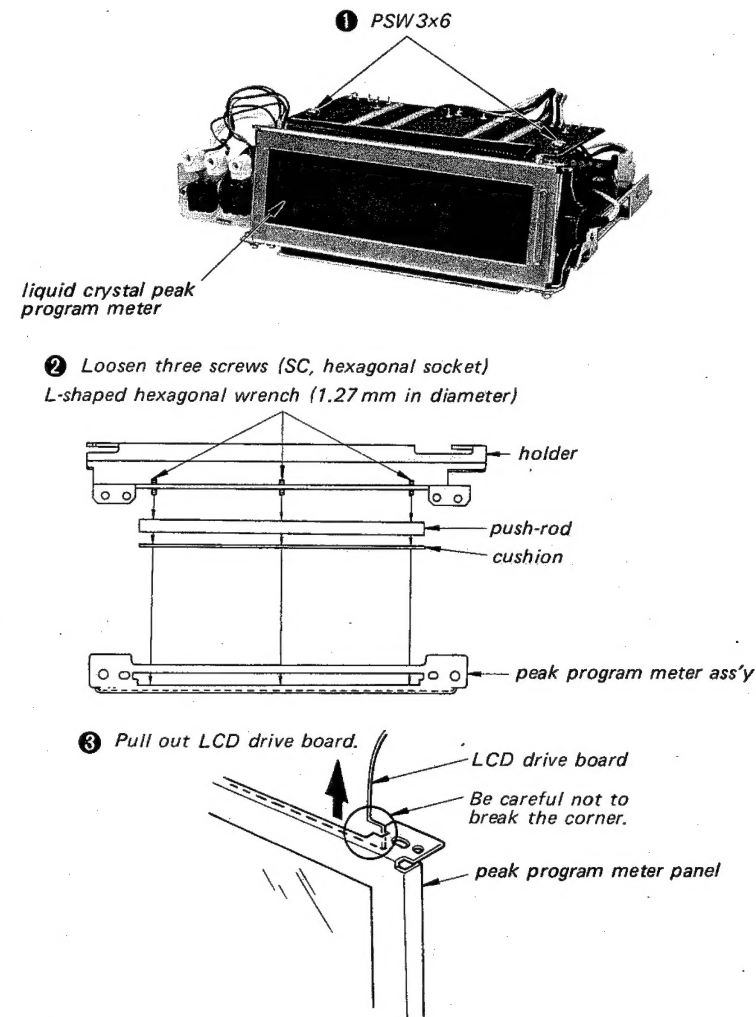
### FLUORESCENT LAMP REMOVAL



#### Caution:

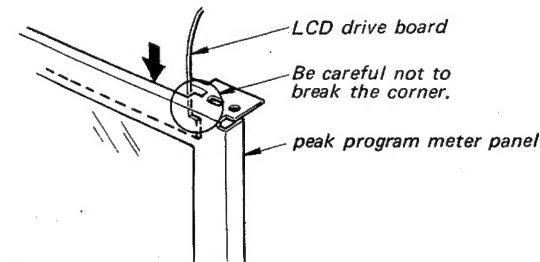
Since the LCD drive board is easy to remove, when removing the fluorescent lamp, be careful not to break the corner of the LCD drive board.

### LCD DRIVE BOARD (FLEXIBLE BOARD) REMOVAL

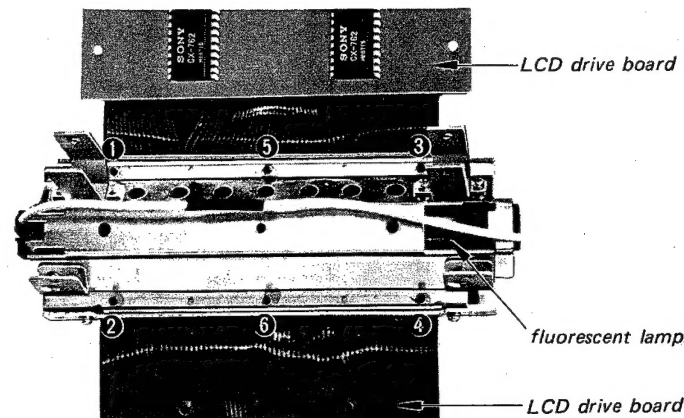


### INSTALLATION OF LCD DRIVE BOARD

1. Insert the LCD drive board in the arrowed direction.

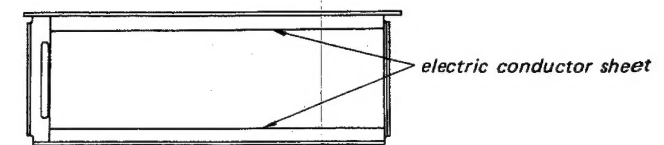


2. Tighten six screws (SC, hexagonal socket) in the numerical order ( ① - ⑥ ).



### SERVICING PRECAUTIONS

- \* The liquid crystal peak program meter assembly and the LCD (liquid crystal) drive board are connected by electric conductor sheets (the black bands). This conductor plate is "pasted" onto the liquid crystal assembly, and must not be removed during repairs.
- \* To check for any defects in the liquid crystal meter and the IC (CX-762), interchange the L-CH and R-CH input connectors to the flexible circuit board.
- \* Since the LCD drive section is mounted on a flexible circuit board, be particularly careful whenever removing and re-installing.
- \* The liquid crystal drive IC (CX-762) is a MOS-IC which also must be handled with considerable care.



# SECTION 3 ADJUSTMENT

TC-K8/K8B

TC-K8/K8B

## PRECAUTION

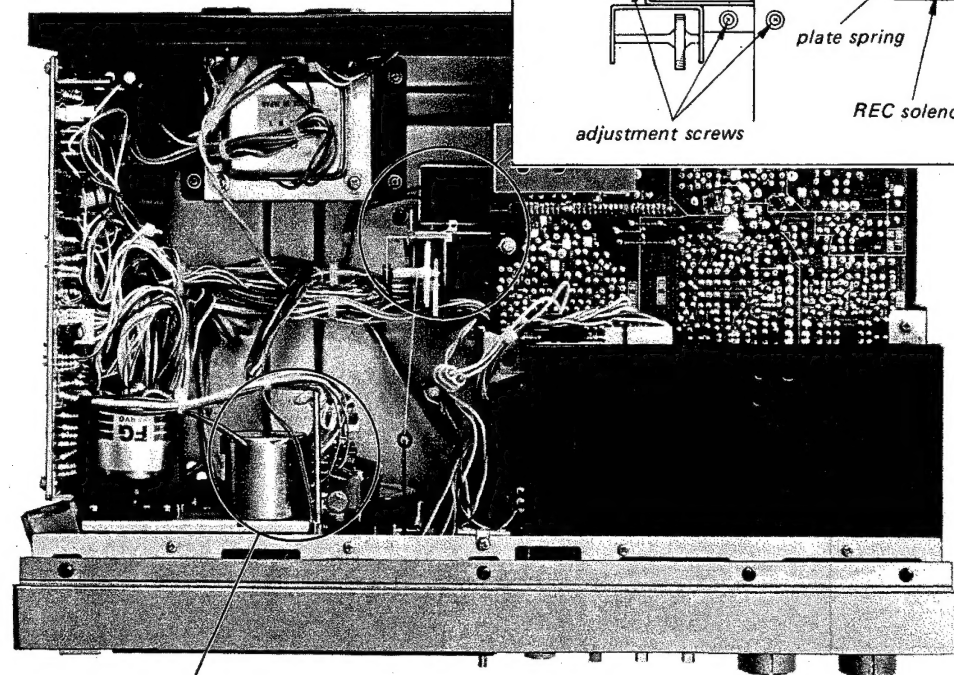
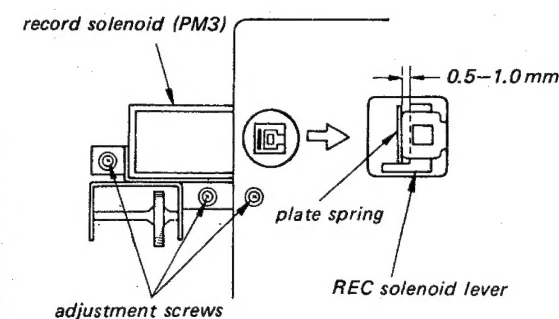
1. Clean the following parts with a denatured-alcohol-moistened swab:
 

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

## 3-1. MECHANICAL ADJUSTMENTS

### Record Solenoid Position Adjustment

Adjust the record solenoid position to obtain the specified clearance between plate spring and record solenoid lever.

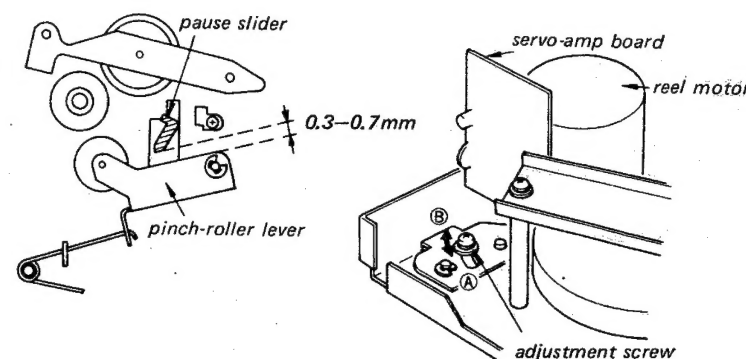


### Pause Lever Position Adjustment

#### — PAUSE mode —

Loosen the adjustment screw and slide it in the direction (A) or (B) to obtain the specified clearance as shown below.

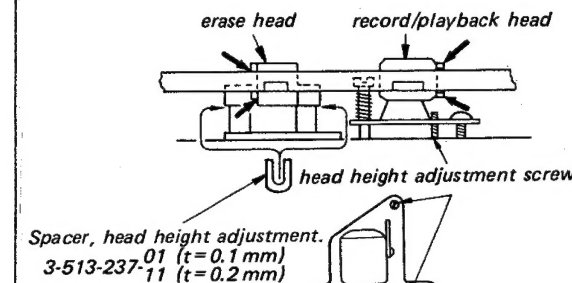
Sliding direction of adjustment screw	Clearance
direction (A)	narrow
direction (B)	wide



### Tape Path Adjustment

#### — playback mode —

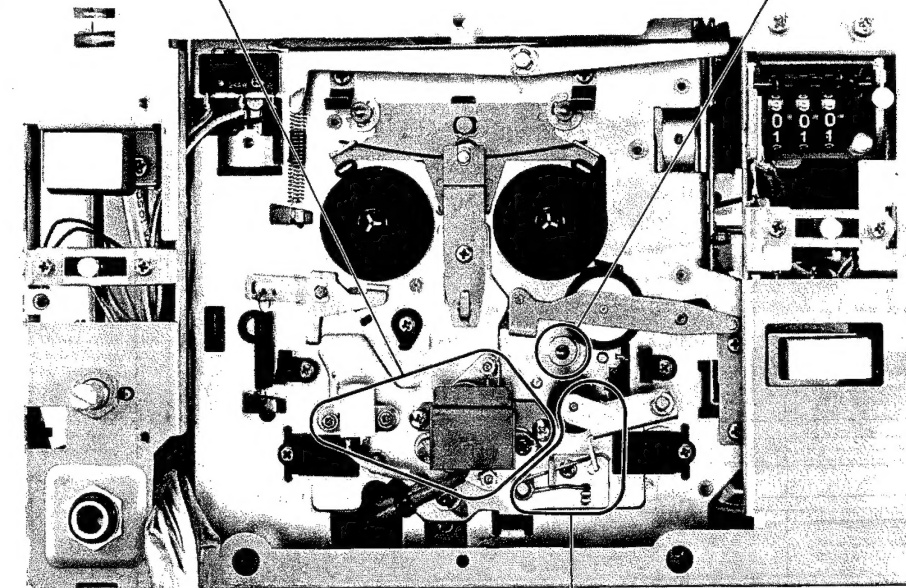
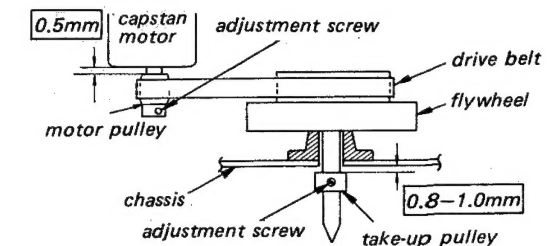
1. Adjust erase head height by adding or removing spacer to eliminate tape curl at the erase head.
2. Adjust record/playback head height adjustment screw to eliminate tape curl at the record/playback head.



### Pulley Height Adjustment

#### — stop mode —

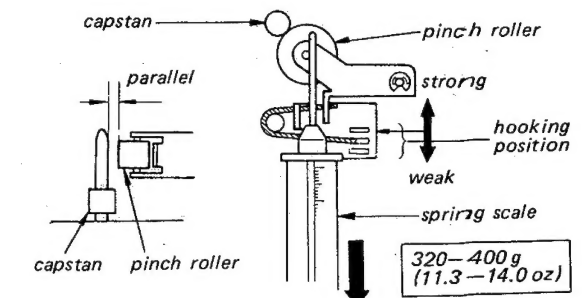
Adjust position of capstan motor pulley and take-up pulley to obtain the specified clearances as shown below.



### Pinch Roller Pressure Adjustment

#### — playback mode —

1. Pull the spring scale.
2. Slowly return the pinch roller and read the spring scale just when the pinch roller starts to rotate.
3. If necessary, change the hooking position.

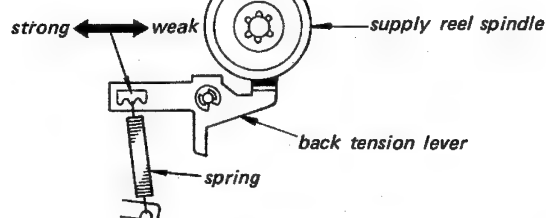


### Forward Back Tension Torque Adjustment

— playback mode —

1. Place the type CQ-101 cassette torque meter in the set.
2. Adjust the spring-hook position to obtain the specified torque.

2-4 g-cm  
(0.03-0.05 oz-inch)

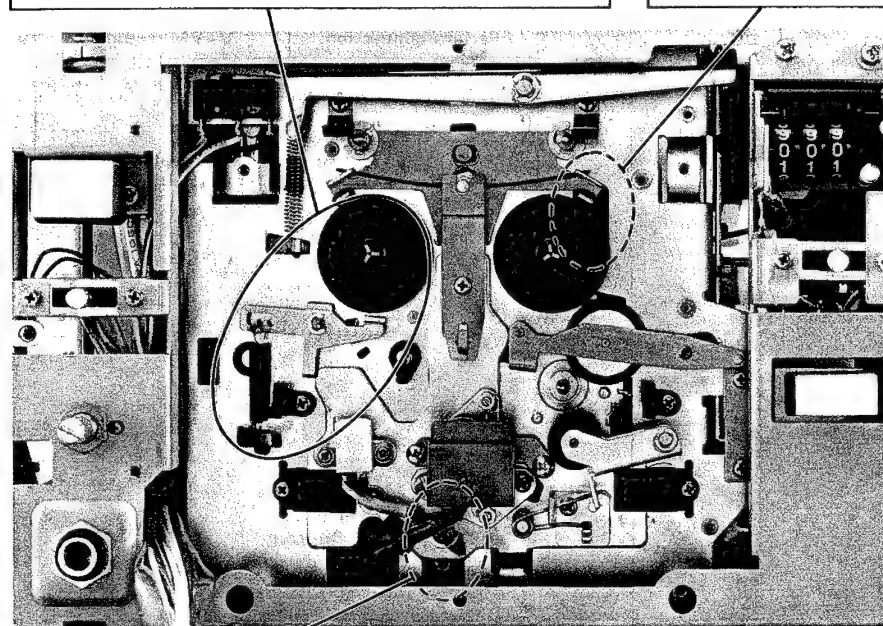
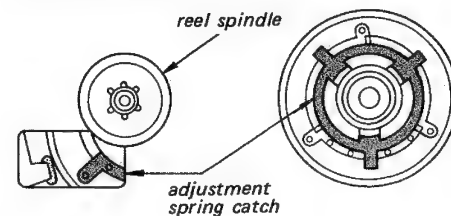


### Forward Torque Adjustment

— playback mode —

1. Place the type CQ-101 cassette torque meter in the set.
2. Adjust the position of the adjustment spring catch using a suitable pin and turning the reel spindle to obtain the specified torque.

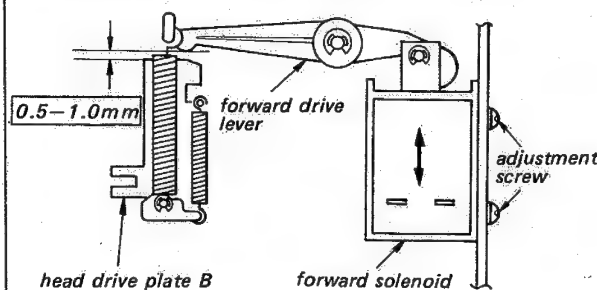
35-55 g-cm  
(0.5-0.75 oz-inch)



### Forward Solenoid Position Adjustment

— playback mode —

Adjust the position of the forward solenoid to obtain the indicated clearance between the forward drive lever and head drive plate B.



### Fast Forward and Rewind Torque Measurement

Use type CQ-201 cassette torque meter.

Fast Forward Torque: 75-130 g-cm  
(1.1-1.8 oz-inch)

Rewind Torque: 75-130 g-cm  
(1.1-1.8 oz-inch)

## 3-2. ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

### Test Equipment/Tools Required:

audio oscillator (af osc)  
VTVM  
digital frequency counter  
speed checker SONY LFM-30  
oscilloscope  
attenuator (600  $\Omega$ )  
non-magnetic screwdriver  
resistors ... 600  $\Omega$  (1/4 W), 10 k $\Omega$  (1/4 W), 100 k $\Omega$  (1/4 W)  
blank tapes (completely erased with bulk eraser)  
SONY CS-10 (HF), CS-20 (CrO<sub>2</sub>), CS-30 (Fe-Cr)

BIAS and EQ switch settings in accordance with tape used are as follows.

Tape	BIAS switch	EQ switch
CS-10	NORMAL	NORMAL
CS-20	HIGH	CrO <sub>2</sub>
CS-30	NORMAL	Fe-Cr

### SONY test tapes

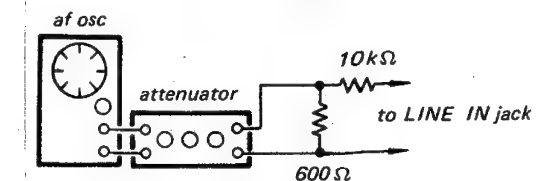
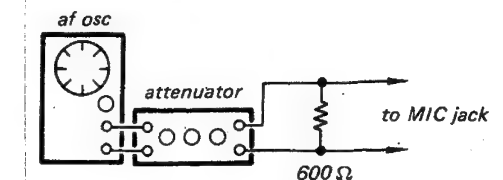
P-4-A81S (6.3 kHz, -10 dB)  
P-4-A82 (10 kHz, -10 dB)  
P-4-L81 (333 Hz, 0 dB)  
WS-48 (3 kHz, 0 dB)

Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch: OFF  
LINE OUT control: MAX  
EQ switch: NORMAL  
BIAS switch: NORMAL  
HEADPHONE LEVEL: MAX  
TIMER switch: OFF  
MEMORY switch: OFF  
LIMITER switch: OFF  
REC MUTE switch: OFF

### Test Equipment Connections:

Input side:



### Standard Record:

Supply the standard input level signal to the input jack and set the MIC or LINE control to obtain the standard output level signal. Set the LINE control to MIN when MIC is used or set MIC control to MIN when LINE IN is used.

### Standard Input Level

	MIC	LINE IN
source impedance	300 $\Omega$	10 k $\Omega$
input level	0.77 mV (-60 dB)	0.25 V (-10 dB)

### Standard Output Level

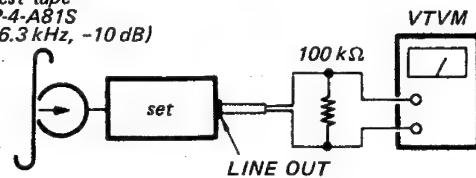
	LINE OUT	HEADPHONES
load impedance	100 k $\Omega$	8 $\Omega$
output level	0.775 V (0 dB)	0.12 V (-16 dB)

### Record/playback Head Azimuth Adjustment

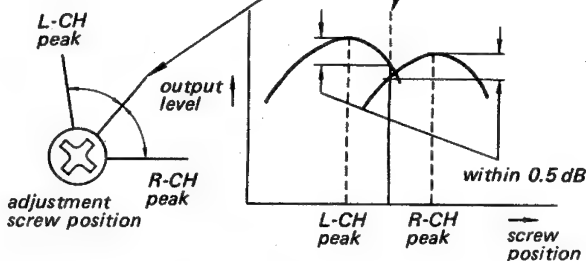
#### Procedure:

1. Mode: Playback

test tape  
P-4-A81S  
(6.3 kHz, -10 dB)

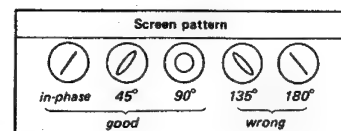
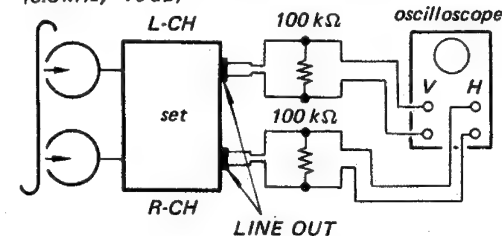


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak position.

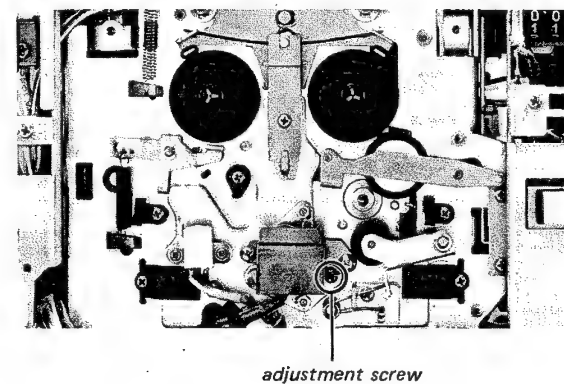


3. Mode: Playback

test tape  
P-4-A81S  
(6.3 kHz, -10 dB)



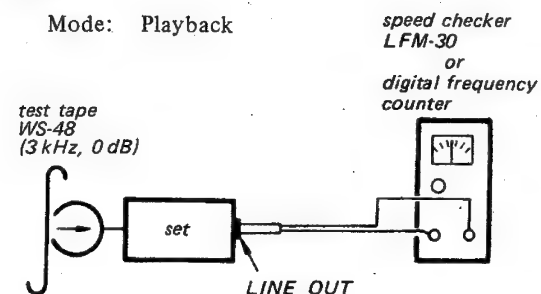
#### Adjustment Location:



### Tape Speed Adjustment

#### Procedure:

Mode: Playback



Adjust RV601 to obtain the specified values below.

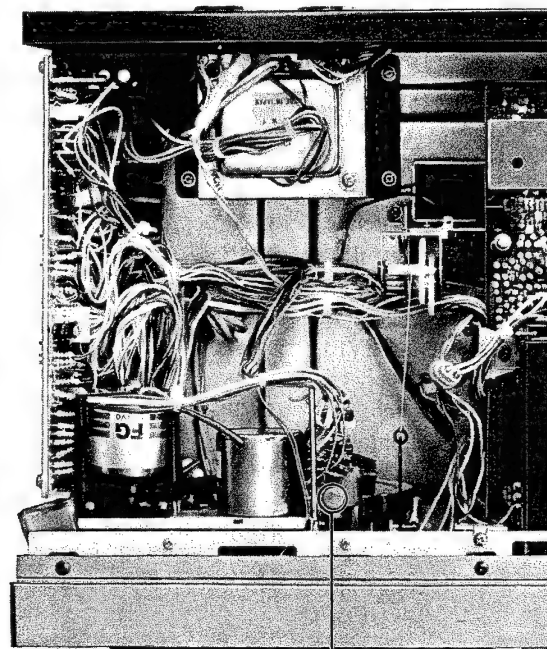
#### Specification:

Speed checker	Digital frequency counter
-0.7-+0.7%	2,980-3,020 Hz

Frequency difference between beginning and end of tape should be within 0.7% (20 Hz).

#### Adjustment Location:

- servo amp board -



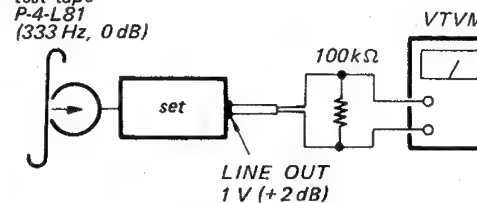
RV601

### Playback Level Adjustment

#### Procedure:

1. Mode: Playback

test tape  
P-4-L81  
(333 Hz, 0 dB)



Adjust RV101 (L-CH) and RV201 (R-CH) to obtain 1 V (+2 dB) VTVM reading.

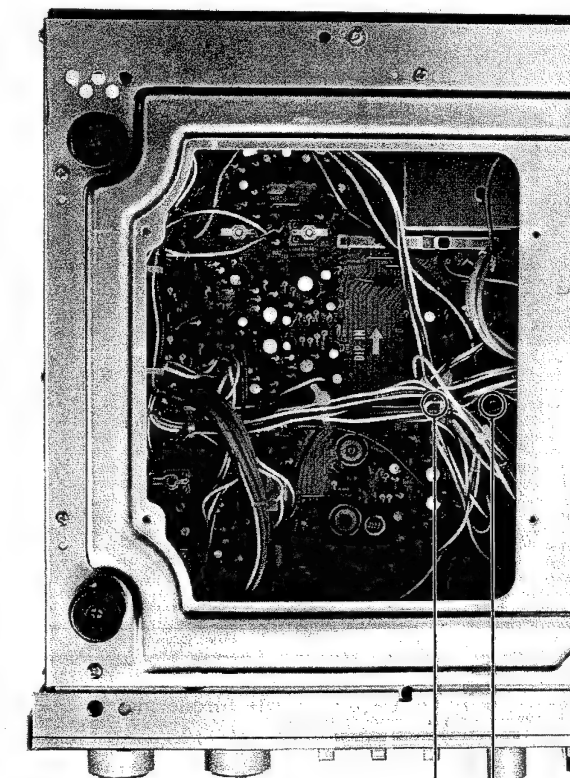
2. Assure that the LINE OUT level does not change when the mode is changed from play-back to stop several times.

#### Specification:

LINE OUT level: 0.92-1.05 V  
(+1.5-+2.5 dB)  
Level difference between channels:  
less than 0.5 dB

#### Adjustment Location:

- record/playback board -



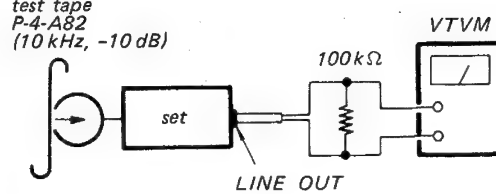
RV201 (R-CH) RV101 (L-CH)

### Playback Equalizer Adjustment

#### Procedure:

Mode: Playback

test tape  
P-4-A82  
(10 kHz, -10 dB)

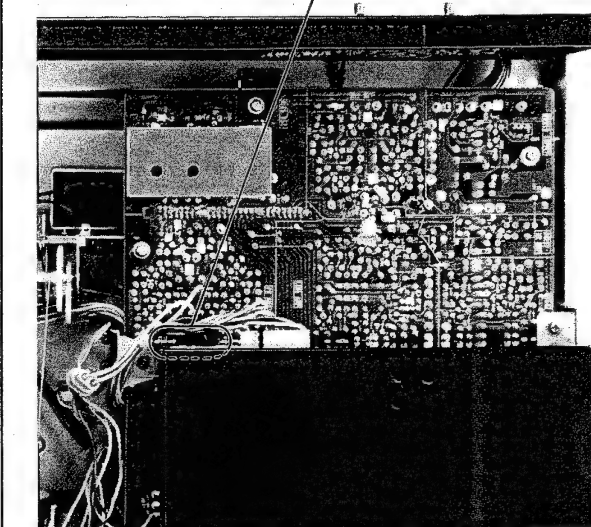
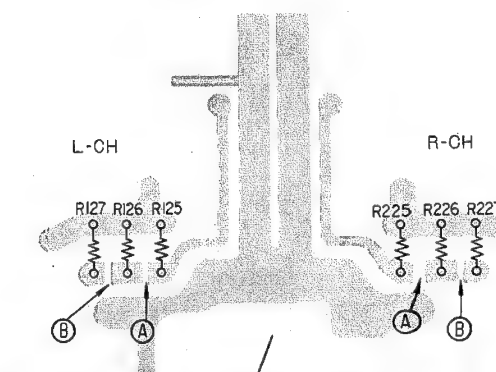


Adjust pattern connections for 0.27-0.37 V (-9.5 - -6.5 dB) VTVM reading.

#### Adjustment Location:

- record/playback board -

Pattern connection	VTVM reading
(open)	up
Ⓐ	
Ⓐ and Ⓑ	down

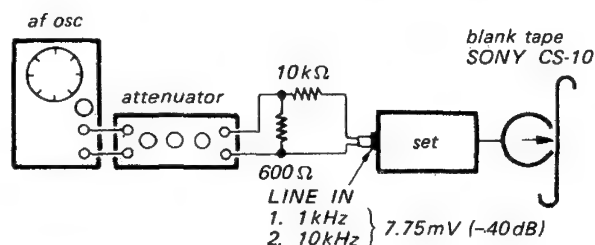


Note: After this adjustment, confirm the playback level.

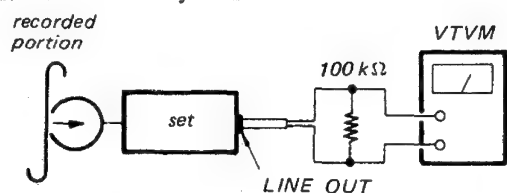
### Record Bias Adjustment

#### Procedure:

1. Mode: Standard record (See page 18.)



2. Mode: Playback



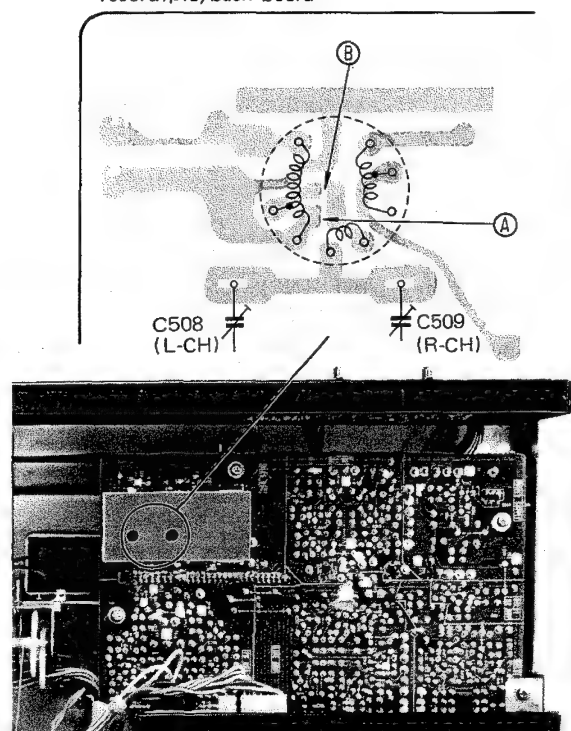
Adjust C508 (L-CH) and C509 (R-CH) to make 10 kHz and 1 kHz signal output levels equal.

Level difference between the two output levels: within 0.5 dB

#### Adjustment Location:

**Note:** Normally, patterns at (A) are bridged. If adjustment is not made with trimmers fully tightened, remove solder bridge at (A) and bridge patterns at (B), and repeat the adjustment.

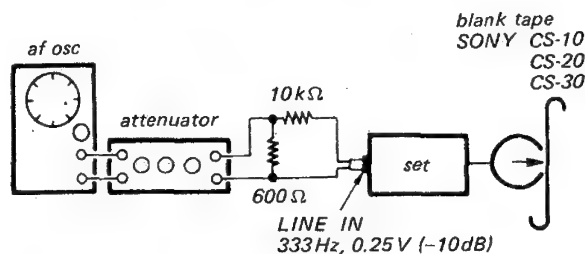
— record/playback board —



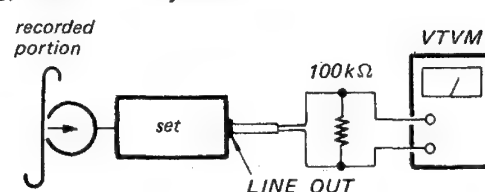
### Record Level Adjustment

#### Procedure:

1. Mode: Standard record (See page 18.)



2. Mode: Playback



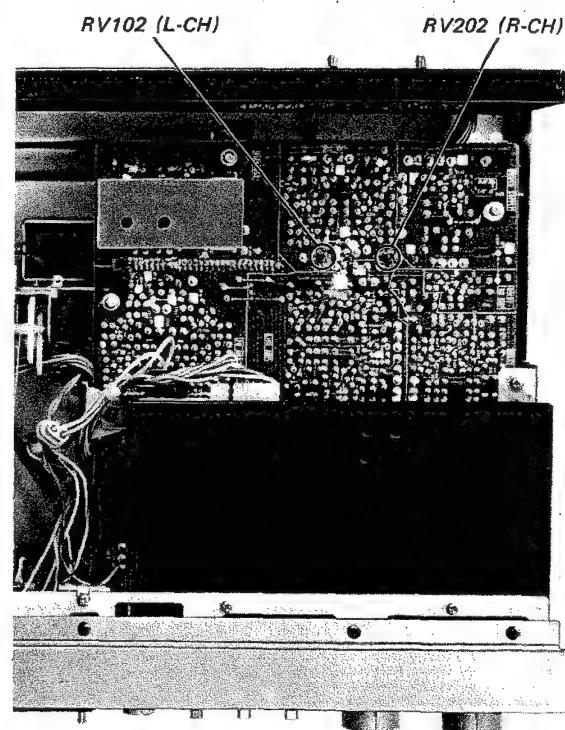
Adjust RV102 (L-CH) and RV202 (R-CH) to obtain 0.775 V (0 dB) VTVM reading.

#### Specification:

LINE OUT level: 0.73–0.81 V  
(-0.5–+0.5 dB)

#### Adjustment Location:

— record/playback board —

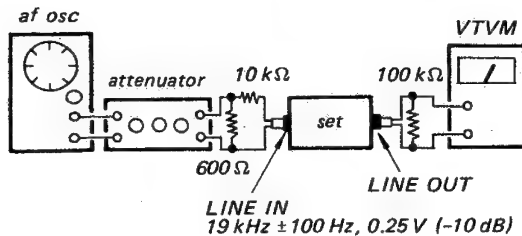


## MPX Filter Adjustment

### Procedure:

Mode: Standard record (See page 18.)

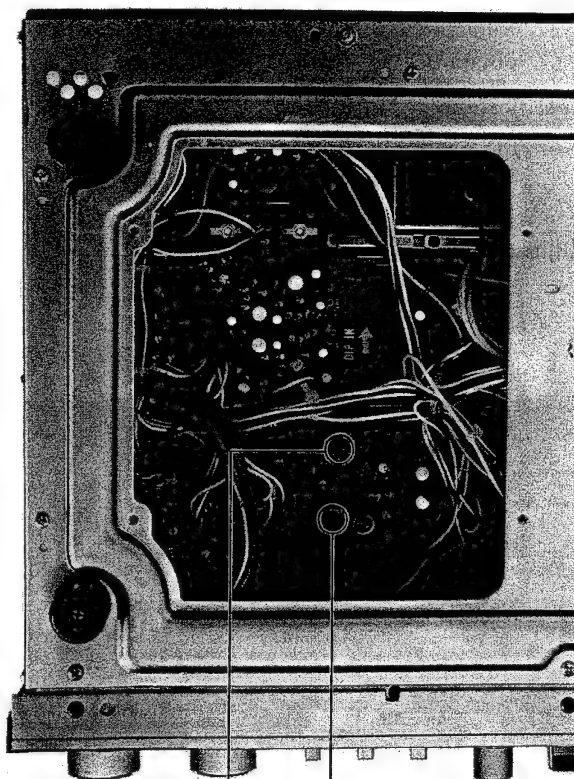
DOLBY NR switch: ON



Adjust L102 (L-CH) and L202 (R-CH) for 25 mV (-30 dB) or less VTVM reading.

### Adjustment Location:

— record/playback board —



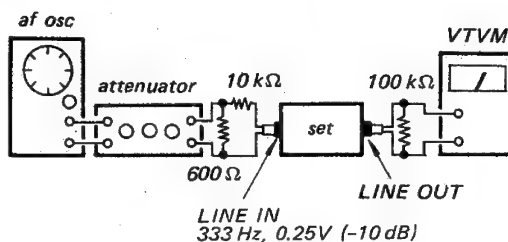
L102 (L-CH) L202 (R-CH)

## Liquid Crystal Peak Program Meter Offset/Gain Adjustment

### Offset Adjustment

#### Procedure:

Mode: Standard record (See page 18.)

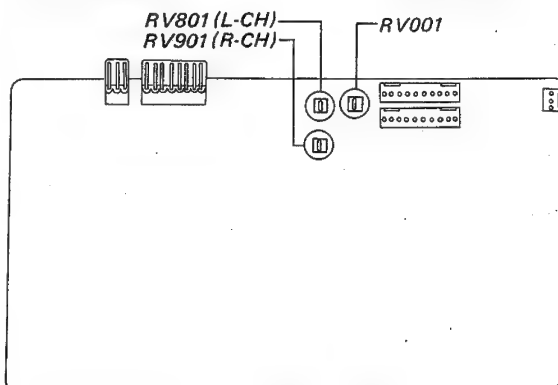


Adjust RV801 (L-CH) and RV901 (R-CH) so that the indication element of the meter places at  $-4 \text{ dB} \pm 1$  element.

### Adjustment Location:

peak program meter  
offset adjustment

peak program meter  
gain adjustment



— A/D converter board —

### Gain Adjustment

#### Procedure:

Mode: Standard record (See page 18.)

By varying LINE IN level for the specified LINE OUT level, adjust RV001 so that the indication element places at the following position.


LINE OUT	Indication Element Position
8 dB	$4 \text{ dB} \pm 1$ element
4 dB	$0 \text{ dB} \pm 1$ element
-6 dB	$-10 \text{ dB} \pm 1$ element
-26 dB	$-30 \text{ dB} \pm 1$ element
-41 dB	the leftmost element only

# SECTION 4 DIAGRAMS

TC-K8/K8B



TC-K8/K8B






## 4-1. SCHEMATIC DIAGRAM - Audio Amp Section -

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

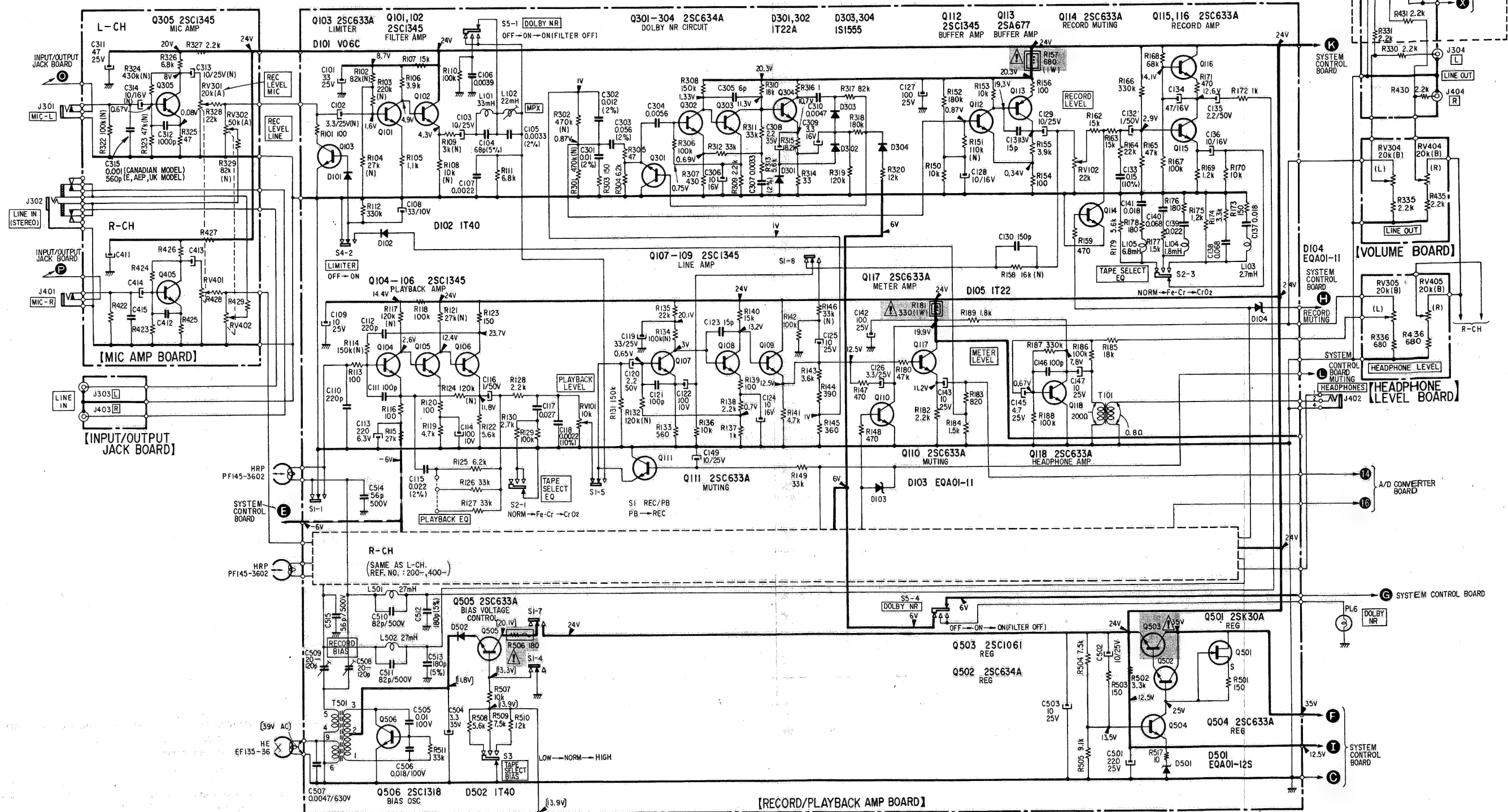
### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} = \mu\text{F}$  50WV or less are not indicated except for electrolytics.
- All resistors are in ohms,  $\frac{1}{2}\text{W}$  unless otherwise noted.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
-  : nonflammable resistor.
-  : fusible resistor.
- (N) : low-noise capacitor and resistor.
- 2% indicates component tolerance.

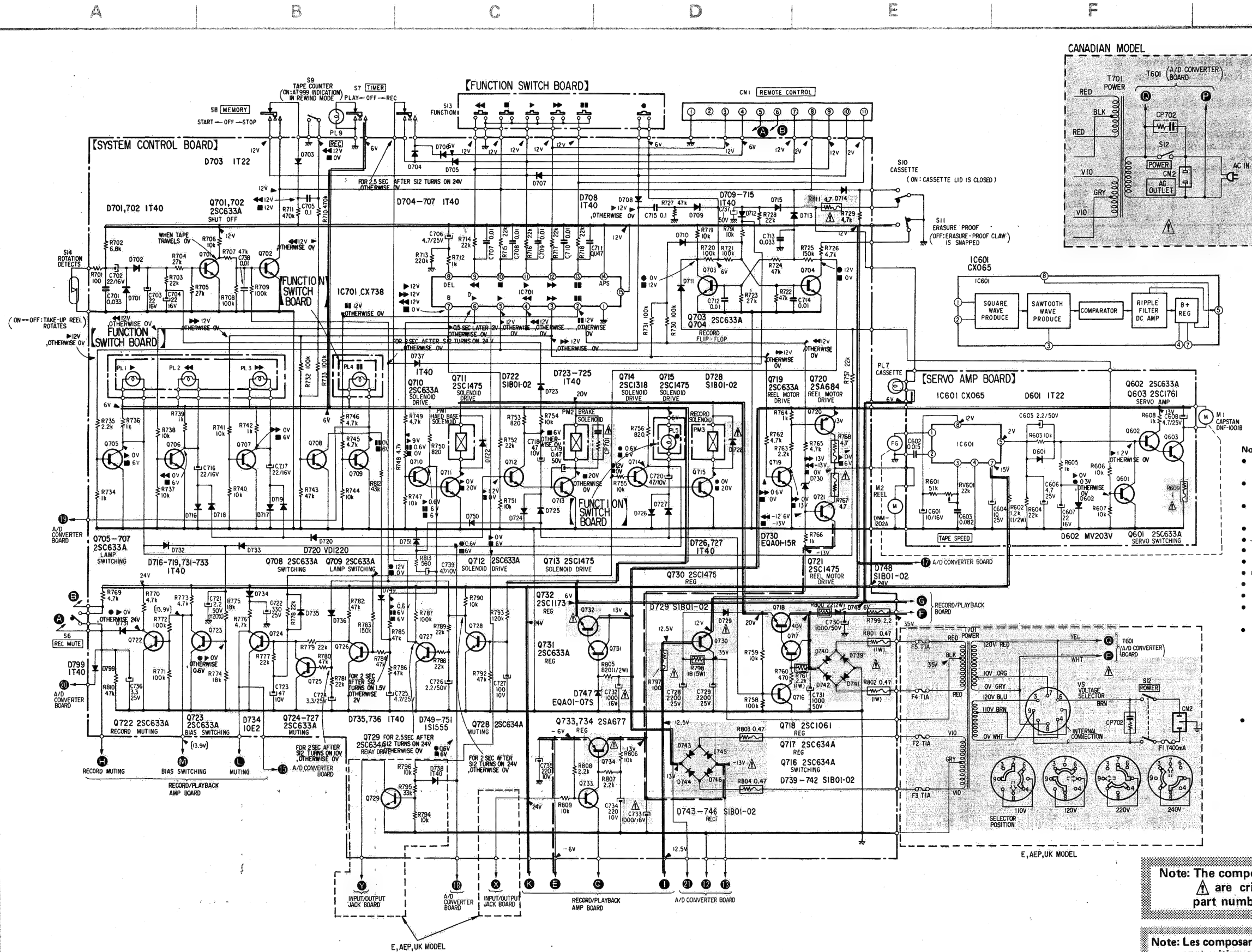
-  : B+ bus.
-  : B- bus.
-  : panel designation.
-  : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken in playback mode (indicated by ) with a VOM (20k $\Omega$ /V).
- [ ] : record mode
- AC voltage readings in the bias oscillator circuit are taken with a VTVM.

### Switch

Ref. No.	Switch	Position
S1	REC/PB	PB
S2	TAPE SELECT EQ	NORMAL
S3	TAPE SELECT BIAS	LOW
S4	LIMITER	OFF
S5	DOLBY NR	OFF



4-2. SCHEMATIC DIAGRAM — System Control Section —



- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} = \mu\text{F}$  50V or less are not indicated except for electrolytics.
  - All resistors are in ohms,  $\frac{1}{2}\text{W}$  unless otherwise noted.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - $\square$  : nonflammable resistor.
  - $\square$  : fusible resistor.
  - 2% indicates component tolerance.
  - $\square$  : B+ bus.
  - $\square$  : B- bus.
  - $\square$  : panel designation.
  - $\square$  : adjustment for repair.
  - Voltages are dc with respect to ground unless otherwise noted.
  - Readings are taken in playback mode (indicated by  $\blacktriangleright$ ) with a VOM (20  $\text{k}\Omega/\text{V}$ ).
  - $\blacksquare$  : STOP
  - $\blacktriangleright$  : FORWARD
  - $\blacktriangleright$  : FAST FORWARD
  - $\blacktriangleleft$  : REWIND
  - $\blacksquare$  : PAUSE
  - $\bullet$  : RECORD
  - Switch

**Note:** The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:** Les composants identifiés par un trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

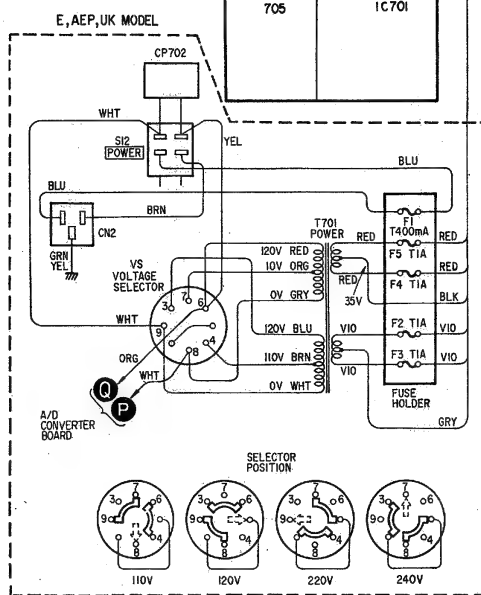
1

2

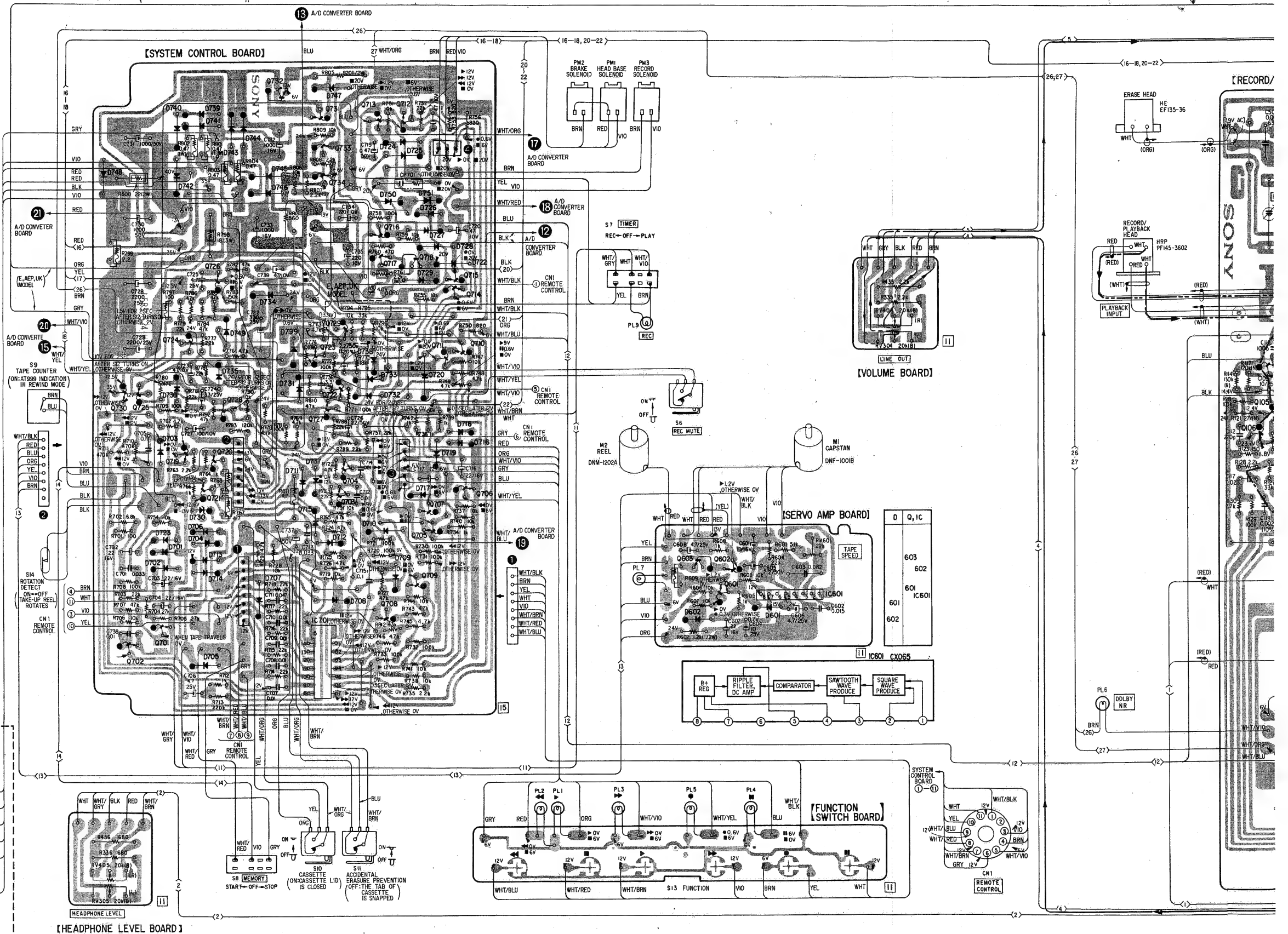
3

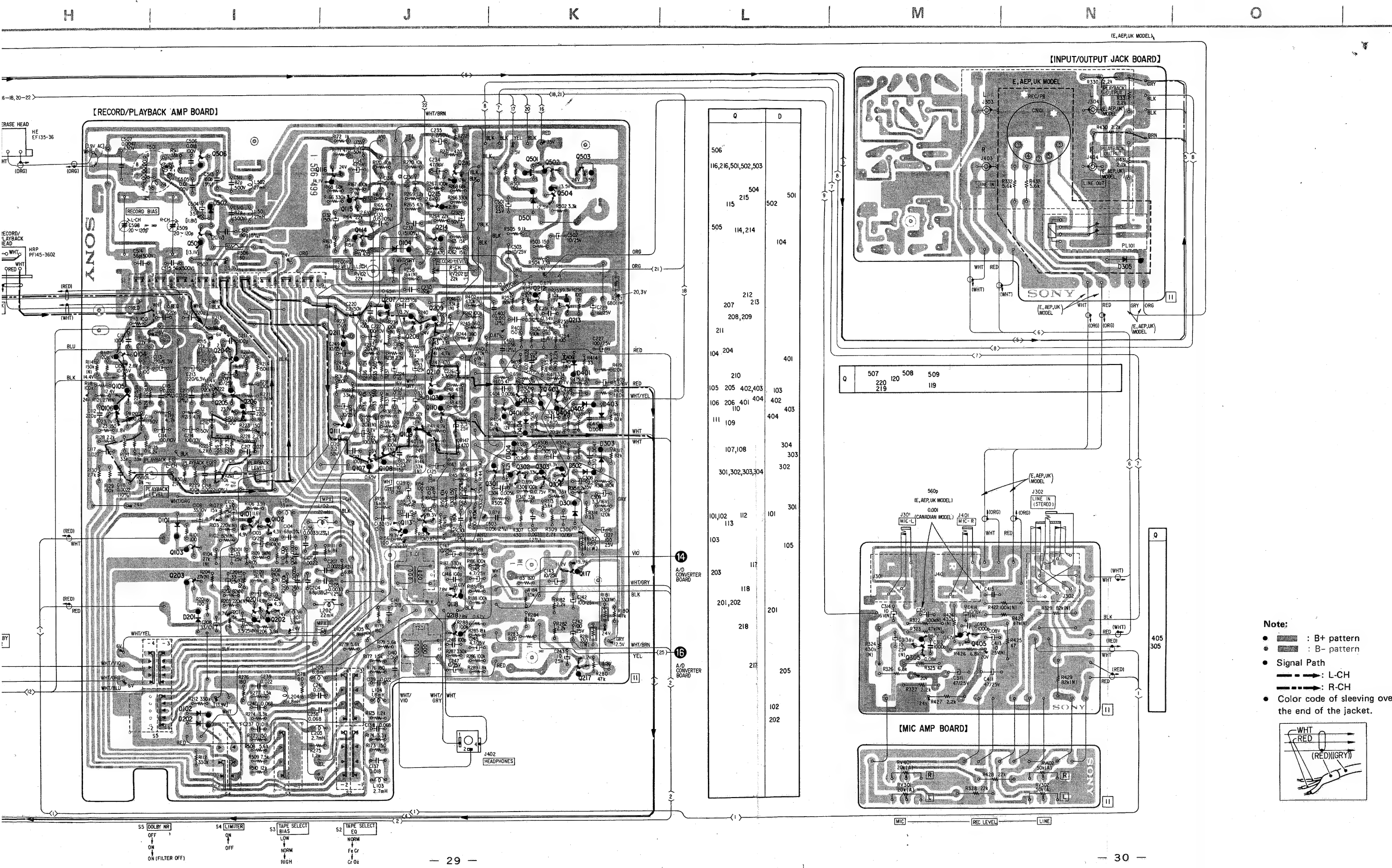
4

5



D	Q, IC
747	732
739	731
740, 741, 744	713, 712
743	
724	733
725	
742	
748	745
	734
	746
	750, 751
	726
	727
	728
	716
	717, 718
	722
	729
	726, 715
734	714
749	729
799	724
	723, 710
738	711
736	
731	733, 720
732	730, 725, 722
	728, 727
	718
	716
703	719, 720
	704
711	721
737	703, 706
717	
730	707
715	
723	706, 710
	705
	704, 712
701	
	713
702	
	714, 709
	709
707	
708	708
	701
	702
705	1C701





**Note:**

- B+ pattern
- B- pattern
- Signal Path
- Color code of sleeving over the end of the jacket.

## 4.4. MOUNTING DIAGRAMS — Conductor Side —

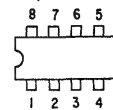
## A/D Converter, LCD Drive Circuit Board

## ● A/D CONVERTER BOARD

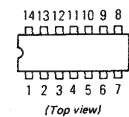
## Replacement Semiconductors

For replacement, use semiconductors except in ( ).

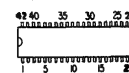
IC1-3, 5:  $\mu$ PC4558C ( $\mu$ PC4558)  
 IC4, 11:  $\mu$ PC1458C ( $\mu$ PC1458)



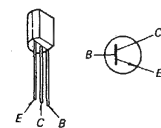
IC6: TC4024P (TC4024)  
 IC7-9: CD4069  
 IC12: TC4081P (TC4081)  
 IC13: TC4068P (TC4068)

IC15:  $\mu$ PC78L05IC16:  $\mu$ A79M05

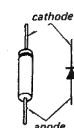
IC801, 802, 901, 902: CX762



Q001-003, 801: 2SC1364 (2SC1363)



D001-004 } : 1S1555  
 D801, 810 }

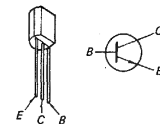


## ● RECORD/PLAYBACK AMP BOARD

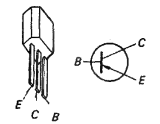
## Replacement Semiconductors

For replacement, use semiconductors except in ( ).

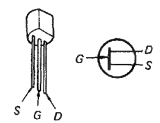
Q101, 102, 104-107 } : 2SC1362 (2SC1345)  
 Q112, 305, 201, 202 } : 2SC1364 (2SC1345)  
 Q204-207, 212, 405 } : 2SC1364 (2SC1345)  
 Q108, 109, 208, 209: } : 2SC1364 (2SC1345)  
 Q103, 110, 111 } : 2SC1364 (2SC633A)  
 Q114-118, 203, 210 } : 2SC1364 (2SC633A)  
 Q211, 214-218 } : 2SC1364 (2SC633A)  
 Q301-304, 401-404 } : 2SC1364 (2SC633A)  
 Q504, 505, 728 } : 2SC1364  
 Q502: 2SC1364



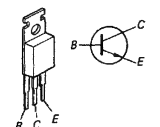
Q113, 213: 2SA678 (2SA677)



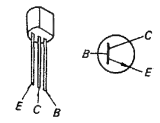
Q501: 2SK30A



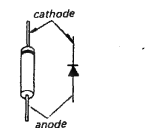
Q503: 2SC1061



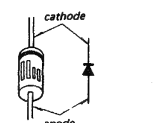
Q506: 2SC1475 (2SC1318)



D101, 201: 10E2 (V06C)  
 D102, 202 } : 1S1555 (1T40)  
 D502 } : 1S1555 (1T40)  
 D301, 302 } : 1T22AM  
 D401, 402 } : 1S1555  
 D303, 304 } : 1S1555  
 D403, 404 }



D103, 104 } : EQB01-11Z (EQA01-11)  
 D203, 204 } : EQB01-12Z (EQA01-12S)  
 D501: EQB01-12Z (EQA01-12S)

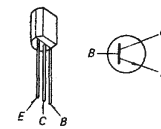


## ● SYSTEM CONTROL BOARD

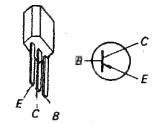
## Replacement Semiconductors

For replacement, use semiconductors except in ( ).

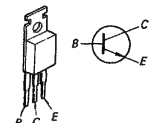
Q601, 602, 701-710 } : 2SC1364 (2SC633A)  
 Q712, 719, 722-729 } : 2SC1364 (2SC633A)  
 Q731 } : 2SC1364 (2SC633A)  
 Q716, 717, 728: 2SC634A



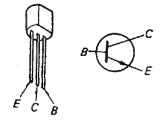
Q733, 734: 2SA678 (2SA677)



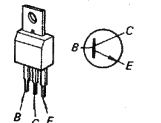
Q718: 2SC1061  
 Q732: 2SC1173



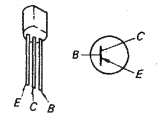
Q711, 713-715 } : 2SC1475  
 Q721, 730 } : 2SC1475 (2SC1318)  
 Q714: 2SC1475 (2SC1318)



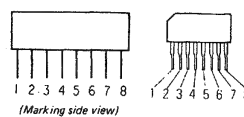
Q603: 2SC1760 (2SC1761)



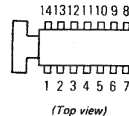
Q720: 2SA684



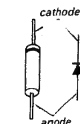
IC601: CX065A (CX065)



IC701: CX738A (CX738)



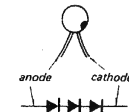
D701, 702, 704-707 } : 1S1555 (1T40)  
 D709-721, 723-727 } : 1S1555 (1T40)  
 D731-733, 735-738 } : 1S1555 (1T40)  
 D749-751, 799 } : 10E2 (SIB01-02)  
 D722, 728, 729 } : 10E2 (SIB01-02)  
 D739-746, 748 } : 10E2 (SIB01-02)  
 D734: 10E2  
 D601, 703, 708: 1T22AM (1T22)



D730: EQB01-15 (EQA01-15R)  
 D747: EQB01-07 (EQA01-07S)



D602: MV203V



A

B

C

D

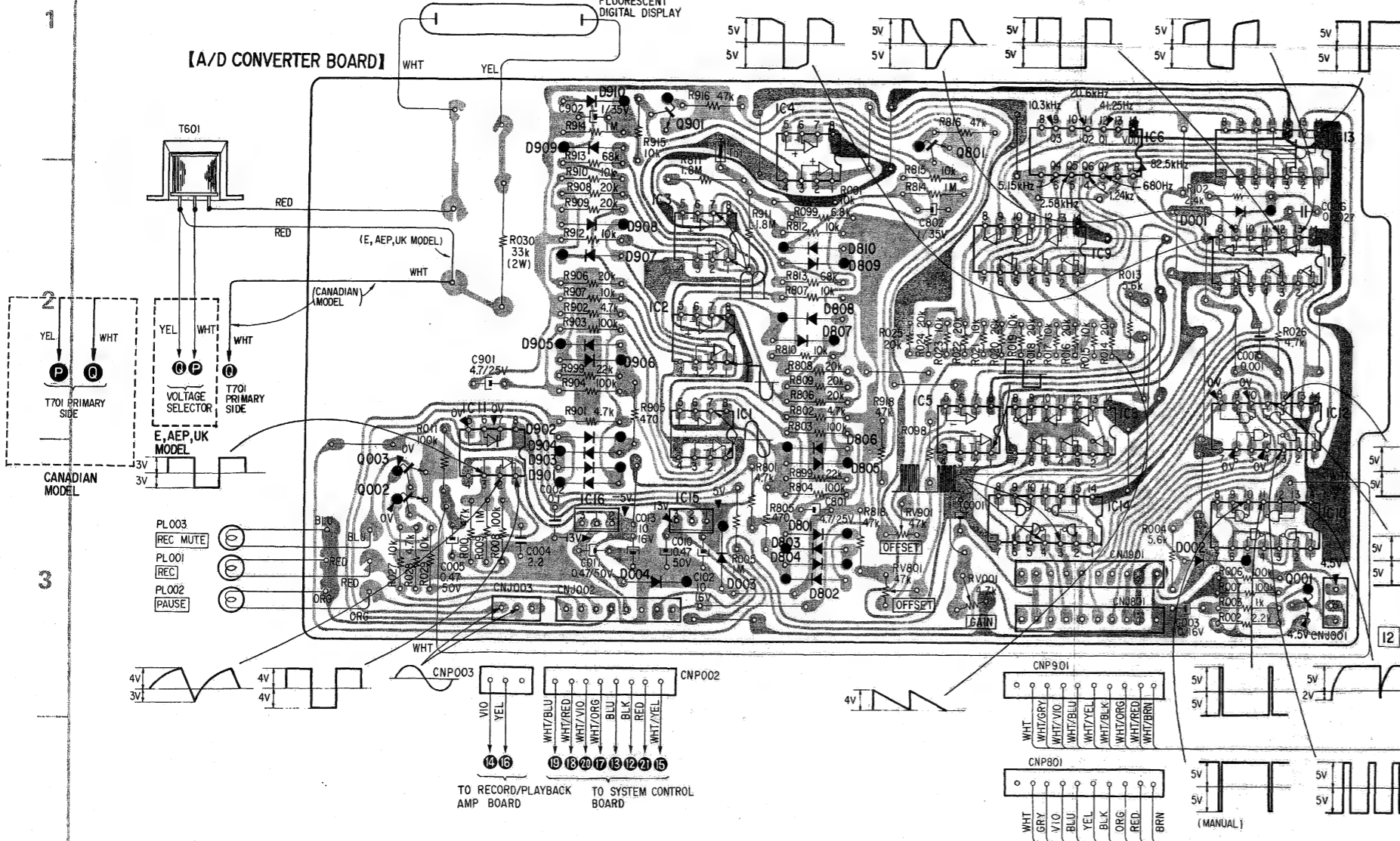
E

F

G

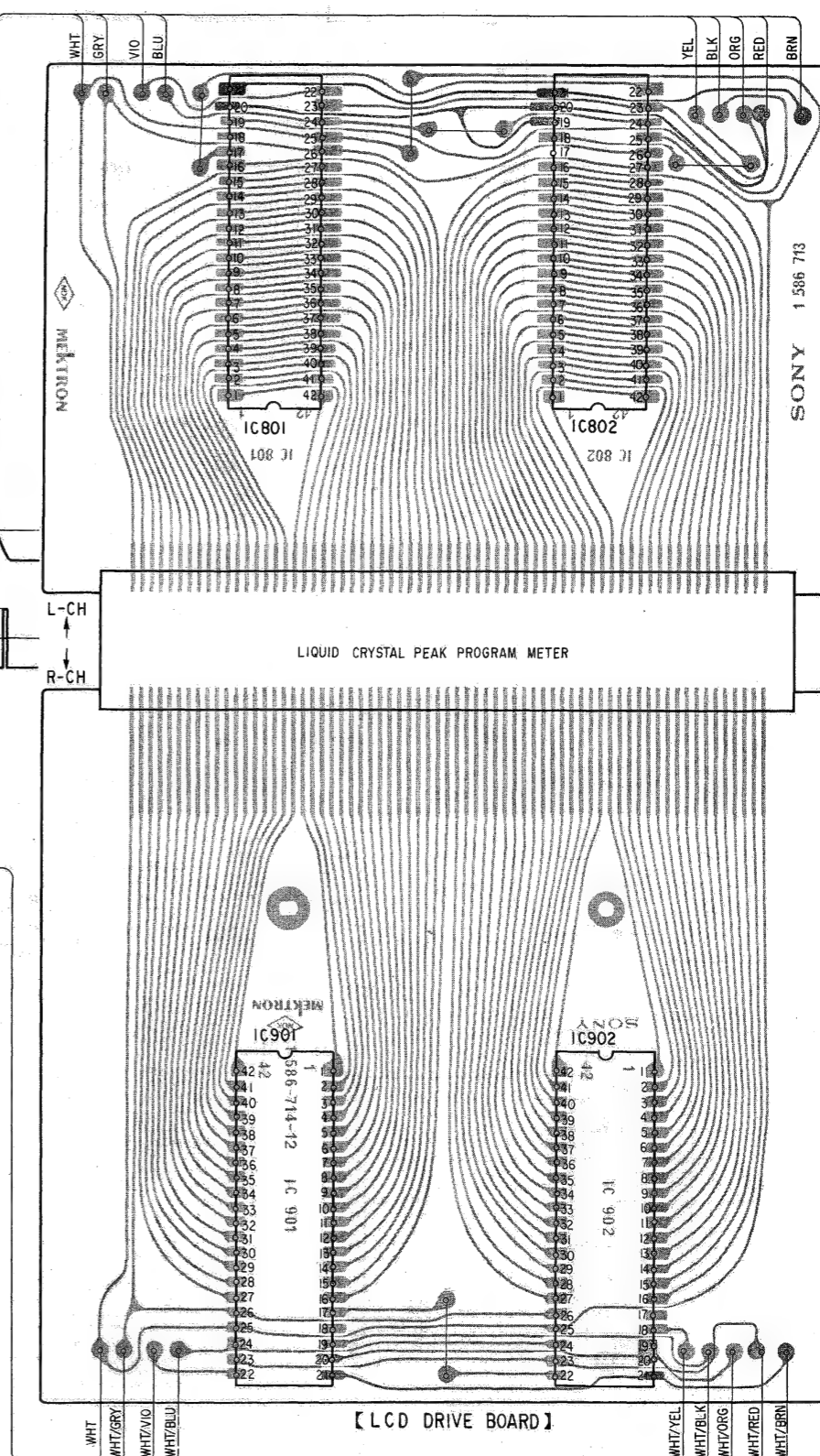
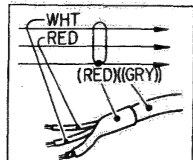
H

Q	003	IC11	901	IC3	IC4	801	IC9	IC6	IC13	IC801	IC802	Q
IC	002		IC16	IC2		IC5	IC8		IC7	IC901	IC902	IC
D			901 910 004	003	801 810		IC14		IC10 001			D

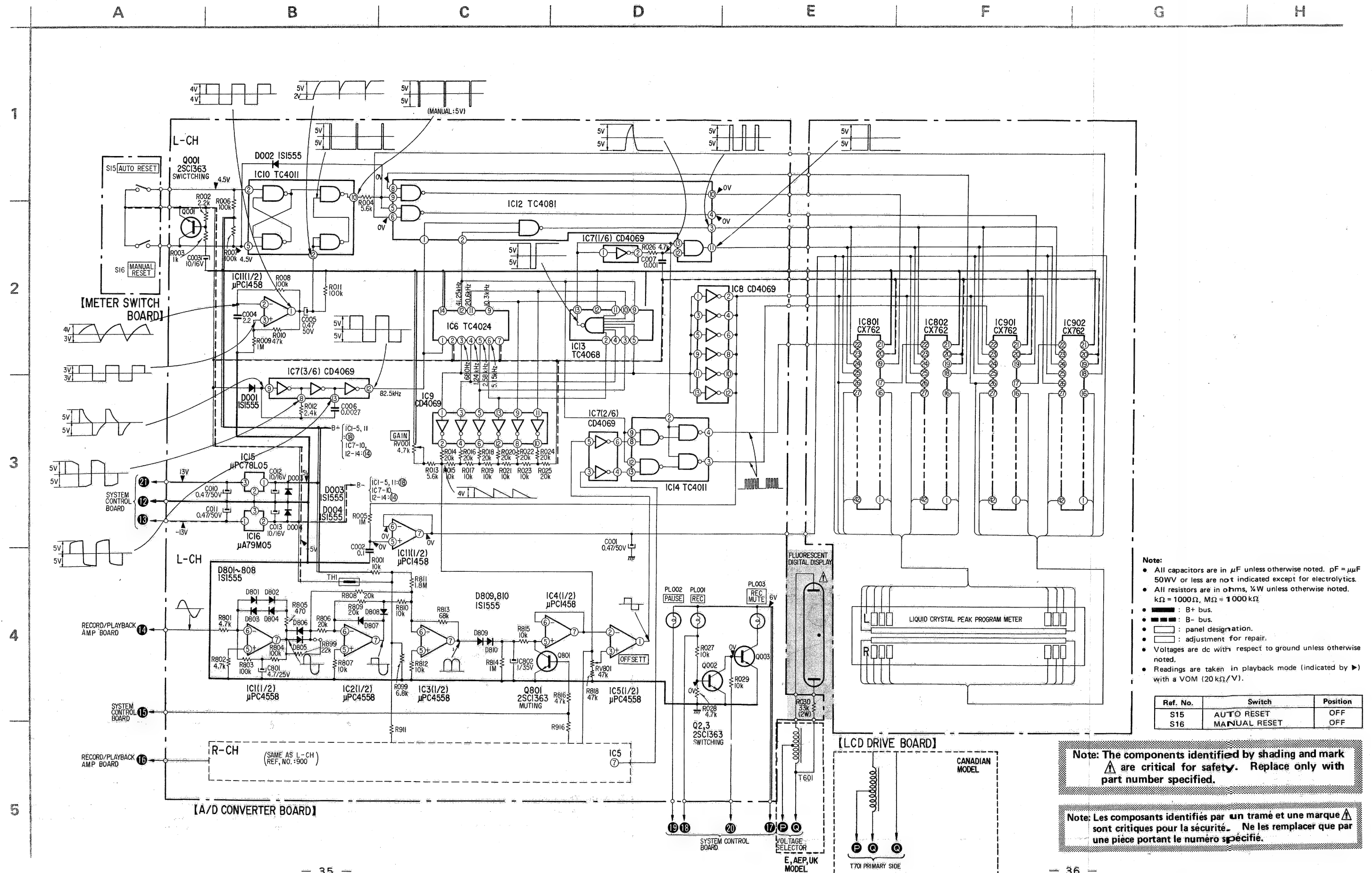


**Note:**

- B+ pattern
- B- pattern
- Color code of sleeving over the end of the jacket.



4-5. SCHEMATIC DIAGRAM — A/D Converter Section —

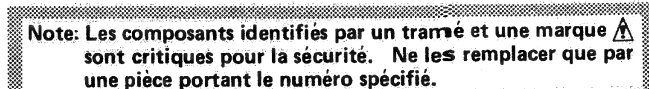


**TC-K8/K8B TC-K8/K8B**

4



5



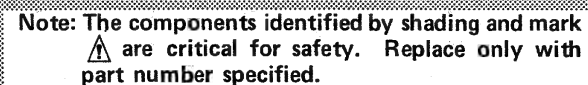
1


2

3

4

5




**Note:** Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.  
(-) = slotted head
- Circled letters (A) to Z) are applicable to European models only.



- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- Circled letters ( $\textcircled{A}$  to  $\textcircled{Z}$ ) are applicable to European models only.

**Note:** The components identified by shading and mark  are critical for safety. Replace only with part number specified.

**Note:** Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



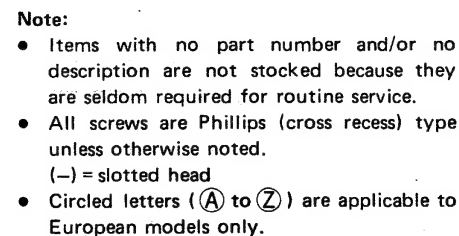
1


2

3

4

5



**Note:** Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 1/4 WATT CARBON RESISTORS (A)

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-244-601-11	10	1-244-625-11	100	1-244-649-11	1.0k	1-244-673-11	10k	1-244-697-11	100k	1-244-721-11	1.0M	1-244-745-11
1.1	1-244-602-11	11	1-244-626-11	110	1-244-650-11	1.1k	1-244-674-11	11k	1-244-698-11	110k	1-244-722-11	1.1M	1-244-746-11
1.2	1-244-603-11	12	1-244-627-11	120	1-244-651-11	1.2k	1-244-675-11	12k	1-244-699-11	120k	1-244-723-11	1.2M	1-244-747-11
1.3	1-244-604-11	13	1-244-628-11	130	1-244-652-11	1.3k	1-244-676-11	13k	1-244-700-11	130k	1-244-724-11	1.3M	1-244-748-11
1.5	1-244-605-11	15	1-244-629-11	150	1-244-653-11	1.5k	1-244-677-11	15k	1-244-701-11	150k	1-244-725-11	1.5M	1-244-749-11
1.6	1-244-606-11	16	1-244-630-11	160	1-244-654-11	1.6k	1-244-678-11	16k	1-244-702-11	160k	1-244-726-11	1.6M	1-244-750-11
1.8	1-244-607-11	18	1-244-631-11	180	1-244-655-11	1.8k	1-244-679-11	18k	1-244-703-11	180k	1-244-737-11	1.8M	1-244-751-11
2.0	1-244-608-11	20	1-244-632-11	200	1-244-656-11	2.0k	1-244-680-11	20k	1-244-704-11	200k	1-244-728-11	2.0M	1-244-752-11
2.2	1-244-609-11	22	1-244-633-11	220	1-244-657-11	2.2k	1-244-681-11	22k	1-244-705-11	220k	1-244-729-11	2.2M	1-244-753-11
2.4	1-244-610-11	24	1-244-634-11	240	1-244-658-11	2.4k	1-244-682-11	24k	1-244-706-11	240k	1-244-730-11	2.4M	1-244-754-11
2.7	1-244-611-11	27	1-244-635-11	270	1-244-659-11	2.7k	1-244-683-11	27k	1-244-707-11	270k	1-244-731-11	2.7M	1-244-755-11
3.0	1-244-612-11	30	1-244-636-11	300	1-244-660-11	3.0k	1-244-684-11	30k	1-244-708-11	300k	1-244-732-11	3.0M	1-244-756-11
3.3	1-244-613-11	33	1-244-637-11	330	1-244-661-11	3.3k	1-244-685-11	33k	1-244-709-11	330k	1-244-733-11	3.3M	1-244-757-11
3.6	1-244-614-11	36	1-244-638-11	360	1-244-662-11	3.6k	1-244-686-11	36k	1-244-710-11	360k	1-244-734-11	3.6M	1-244-758-11
3.9	1-244-615-11	39	1-244-639-11	390	1-244-663-11	3.9k	1-244-687-11	39k	1-244-711-11	390k	1-244-735-11	3.9M	1-244-759-11
4.3	1-244-616-11	43	1-244-640-11	430	1-244-664-11	4.3k	1-244-688-11	43k	1-244-712-11	430k	1-244-736-11	4.3M	1-244-760-11
4.7	1-244-617-11	47	1-244-641-11	470	1-244-665-11	4.7k	1-244-689-11	47k	1-244-713-11	470k	1-244-737-11	4.7M	1-244-761-11
5.1	1-244-618-11	51	1-244-642-11	510	1-244-666-11	5.1k	1-244-690-11	51k	1-244-714-11	510k	1-244-738-11	5.1M	1-244-762-11
5.6	1-244-619-11	56	1-244-643-11	560	1-244-667-11	5.6k	1-244-691-11	56k	1-244-715-11	560k	1-244-739-11		
6.2	1-244-620-11	62	1-244-644-11	620	1-244-668-11	6.2k	1-244-692-11	62k	1-244-716-11	620k	1-244-740-11		
6.8	1-244-621-11	68	1-244-645-11	680	1-244-669-11	6.8k	1-244-693-11	68k	1-244-717-11	680k	1-244-741-11		
7.5	1-244-622-11	75	1-244-646-11	750	1-244-670-11	7.5k	1-244-694-11	75k	1-244-718-11	750k	1-244-742-11		
8.2	1-244-623-11	82	1-244-647-11	820	1-244-671-11	8.2k	1-244-695-11	82k	1-244-719-11	820k	1-244-743-11		
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91k	1-244-720-11	910k	1-244-744-11		

## HARDWARE NOMENCLATURE

**Screw:**

**P 3 x 10**


**L:** Length in mm

**D:** Diameter in mm

**Type of head**

**Indicated slotted-head only.**

*Unless otherwise indicated, it means cross-recessed head (Phillips type).*




























**Nut, Washer, Retaining ring:**

N 3

— Diameter of usable screw or shaft

— Reference designation

Reference Designation	Shape	Description	Remarks
<b>SCREWS</b>			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
<b>SELF-TAPPING SCREWS</b>			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
<b>SET SCREWS</b>			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
<b>NUT</b>			
N		nut	
<b>WASHERS</b>			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
<b>RETAINING RINGS</b>			
E		retaining ring	
G		grip-type retaining ring	

SECTION 6  
ELECTRICAL PARTS LIST

Note:

Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
<b>SEMICONDUCTORS</b>		
<b>Transistors</b>		
⇒ Q001-003	8-729-663-47	(B) 2SC1364
⇒ Q101,201	8-729-665-47	(B) 2SC1362
⇒ Q102,202		
⇒ Q103,203		
⇒ Q104-107	8-729-665-47	(B) 2SC1362
⇒ Q204-207		
⇒ Q108-111	8-729-663-47	(B) 2SC1364
⇒ Q208-211		
⇒ Q112,212	8-729-665-47	(B) 2SC1362
⇒ Q113,213	8-727-788-00	(B) 2SA678
⇒ Q114-120	8-729-663-47	(B) 2SC1364
⇒ Q214-220		
⇒ Q301-304	8-729-663-47	(B) 2SC1364
⇒ Q401-404		
⇒ Q305,405	8-729-665-47	(B) 2SC1362
⇒ Q501	8-729-203-04	(B) 2SK30A
⇒ Q502	8-729-663-47	(B) 2SC1364
Q503	8-729-316-12	(D) 2SC1061
⇒ Q504,505	8-729-663-47	(B) 2SC1364
⇒ Q506	8-760-413-10	(B) 2SC1475
⇒ Q507-509	8-729-663-47	(B) 2SC1364
⇒ Q601,602	8-729-663-47	(B) 2SC1364
⇒ Q603	8-763-314-00	(C) 2SC1760
⇒ Q701-710	8-729-663-47	(B) 2SC1364
Q711	8-760-413-10	(B) 2SC1475
⇒ Q712	8-729-663-47	(B) 2SC1364
Q713-715	8-760-413-10	(C) 2SC1475
⇒ Q716,717	8-729-663-47	(B) 2SC1364
Q718	8-729-316-12	(D) 2SC1061
⇒ Q719	8-729-663-47	(B) 2SC1364
Q720	8-729-468-43	(C) 2SA684
Q721	8-760-413-10	(B) 2SC1475
⇒ Q722-728	8-729-663-47	(B) 2SC1364
⇒ Q729	8-729-663-47	(B) 2SC1364 (E, AEP, UK model)
Q730	8-760-413-10	(C) 2SC1475

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
⇒ Q731	8-729-663-47	Ⓑ 2SC1364
Q732	⚠ 8-729-217-33	Ⓒ 2SC1173
⇒ Q733	8-727-788-00	Ⓑ 2SA678
⇒ Q734	⚠ 8-727-788-00	Ⓑ 2SA678
⇒ Q801	8-729-663-47	Ⓑ 2SC1364
ICs		
⇒ IC1-3	8-759-145-58	μPC4558C
⇒ IC4	8-759-114-58	μPC1458C
⇒ IC5	8-759-145-58	μPC4558C
⇒ IC6	8-759-240-24	TC4024P
IC7-9	8-759-940-69	CD4069
⇒ IC10	8-759-240-11	TC4011P
⇒ IC11	8-759-114-58	μPC1458C
⇒ IC12	8-759-240-81	TC4081P
⇒ IC13	8-759-240-68	TC4068P
⇒ IC14	8-759-240-11	TC4011P
IC15	8-759-178-05	μPC78L05
IC16	8-759-979-05	μA79M05
⇒ IC601	8-759-600-65	Ⓕ CX065A
⇒ IC701	8-759-107-38	Ⓙ CX738A
IC801,802 IC901,902	8-759-907-62	CX762
Diodes		
D001-004	8-719-815-55	Ⓑ 1S1555
⇒ D101,201	8-719-200-02	Ⓑ 10E2
⇒ D102,202	8-719-815-55	Ⓑ 1S1555
⇒ D103,104 ⇒ D203,204	8-719-930-11	Ⓑ EQB01-11Z
⇒ D105,205	8-719-422-21	Ⓐ 1T22AM
⇒ D301,401 ⇒ D302,402	8-719-422-21	Ⓐ 1T22AM
D303,403 D304,404	8-719-815-55	Ⓑ 1S1555
⇒ D305	8-719-815-55	Ⓑ 1S1555 (E, AEP, UK model)

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.Note: Les composants identifiés par un trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note: Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
⇒ D501	8-719-930-12	(B) EQB01-12Z
⇒ D502	8-719-815-55	(B) 1S1555
⇒ D601	8-719-422-21	(A) 1T22AM
⇒ D602	8-719-920-30	(B) MV203V
⇒ D701,702	8-719-815-55	(B) 1S1555
⇒ D703	8-719-422-21	(A) 1T22AM
⇒ D704-707	8-719-815-55	(B) 1S1555
⇒ D708	8-719-422-21	(A) 1T22AM
⇒ D709-721	8-719-815-55	(B) 1S1555
⇒ D722	8-719-200-02	(B) 10E2
⇒ D723-727	8-719-815-55	(B) 1S1555
⇒ D728	8-719-200-02	(B) 10E2
⇒ D729	8-719-200-02	(B) 10E2
⇒ D730	8-719-931-15	(B) EQB01-15
⇒ D731-733	8-719-815-55	(B) 1S1555
D734	8-719-200-02	(B) 10E2
⇒ D735-737	8-719-815-55	(B) 1S1555
⇒ D738	8-719-815-55	(B) 1S1555 (E, AEP, UK model)
⇒ D739-746	8-719-200-02	(B) 10E2
⇒ D747	8-719-931-07	(B) EQB01-07
⇒ D748	8-719-200-02	(B) 10E2
⇒ D749-751	8-719-815-55	(B) 1S1555
D801-810	8-719-815-55	(B) 1S1555
Th1	1-800-202-XX	Thermistor, S-10K
<b>COILS</b>		
L101,201	1-407-879-00	(B) 33 mH, microinductor
L102,202	1-407-240-00	(B) 22 mH, variable inductor
L103,203	1-407-199-XX	(B) 2.7 mH, microinductor
L104,204	1-407-197-XX	(B) 1.8 mH, microinductor
L105,205	1-407-204-XX	(B) 6.8 mH, microinductor
L501,502	1-407-211-XX	(A) 27 mH, microinductor
<b>TRANSFORMERS</b>		
T101,201	1-427-284-00	(C) Output

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
T501	1-433-132-11	(C) Osc
T601	1-446-038-00	(H) Step-up (E, AEP, UK model)
	1-443-015-00	Step-up (Canadian model)
T701	1-442-778-00	(P) Power (E, AEP, UK model)
	1-442-740-00	(Q) Power (Canadian model)
<b>CAPACITORS</b>		
All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics. pF: μμF, elect = electrolytic		
C001	1-121-726-11	(B) 0.47 50V elect
C002	1-108-603-12	(B) 0.1 mylar
C003	1-121-968-11	(B) 10 16V elect
C004	1-123-230-11	(B) 2.2 50V elect
C005	1-121-726-11	(B) 0.47 50V elect
C006	1-102-122-11	(A) 0.0027
C007	1-102-074-11	(A) 0.001
C010,011	1-121-726-11	(B) 0.47 50V elect
C012,013	1-121-968-11	(B) 10 16V elect
C101,201	1-121-404-11	(B) 33 25V elect
C102,202	1-121-913-11	(B) 3.3 25V elect
C103,203	1-121-398-11	(B) 10 25V elect
C104,204	1-107-081-11	(B) 68p silvered mica
C105,205	1-129-794-11	(B) 0.0033 polyethylene
C106,206	1-108-569-12	(B) 0.0039 mylar
C107,207	1-108-563-12	(B) 0.0022 mylar
C108,208	1-121-402-11	(B) 33 10V elect
C109,209	1-121-398-11	(B) 10 25V elect
C110,210	1-102-110-11	(A) 220p
C111,211	1-102-106-11	(A) 100p
C112,212	1-102-110-11	(A) 220p
C113,213	1-121-419-11	(B) 220 6.3V elect
C114,214	1-121-414-11	(B) 100 10V elect
C115,215	1-130-072-11	(B) 0.022 100V polystyrol
C116,216	1-121-391-11	(B) 1 50V elect
C117,217	1-108-589-12	(B) 0.027 mylar

Note: Les composants identifiés par un trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

# TC-K8/K8B TC-K8/K8B

Note: Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
C118,218	1-108-230-12 (A) 0.0022	mylar
C119,219	1-121-404-11 (B) 33	25V elect
C120,220	1-121-450-11 (B) 2.2	50V elect
C121,221	1-102-106-11 (A) 100p	
C122,222	1-121-414-11 (B) 100	10V elect
C123,223	1-102-956-11 (A) 15p	
C124,224	1-121-651-11 (B) 10	16V elect
C125,225	1-121-398-11 (B) 10	25V elect
C126,226	1-121-392-11 (B) 3.3	25V elect
C127,227	1-121-416-11 (B) 100	25V elect
C128,228	1-121-651-11 (B) 10	16V elect
C129,229	1-121-398-11 (B) 10	25V elect
C130,230	1-102-108-11 (A) 150p	
C131,231	1-102-956-11 (A) 15p	
C132,232	1-121-391-11 (B) 1	50V elect
C133,233	1-108-252-12 (B) 0.15	mylar
C134,234	1-121-409-11 (B) 47	16V elect
C135,235	1-121-450-11 (B) 2.2	50V elect
C136,236	1-121-651-11 (B) 10	16V elect
C137,237	1-108-585-12 (B) 0.018	mylar
C138,238	1-108-599-12 (B) 0.068	mylar
C139,239	1-108-587-12 (B) 0.022	mylar
C140,240	1-108-599-12 (B) 0.068	mylar
C141,241	1-108-585-12 (B) 0.018	mylar
C142,242	1-121-416-11 (B) 100	25V elect
C143,243	1-121-398-11 (B) 10	25V elect
C145,245	1-121-395-11 (B) 4.7	25V elect
C146,246	1-102-106-11 (A) 100p	
C147,247	1-121-398-11 (B) 10	25V elect
C149,249	1-121-398-11 (B) 10	25V elect
C301,401	1-129-701-11 (B) 0.01	100V polyethylene
C302,402	1-129-896-11 (B) 0.012	100V polyethylene
C303,403	1-129-899-11 (B) 0.056	100V polyethylene
C304,404	1-108-573-12 (B) 0.0056	mylar
C305,405	1-102-943-11 (A) 6p	
C306,406	1-121-651-11 (B) 10	16V elect
C307,407	1-129-794-11 (B) 0.0033	100V polyethylene
C308,408	1-131-217-11 (B) 2.2	35V tantalum
C309,409	1-131-197-11 (B) 3.3	16V tantalum
C310,410	1-108-571-12 (B) 0.0047	mylar

Ref. No.	Part No.	Description
C311,411	1-121-410-11 (B) 47	25V elect
C312,412	1-102-074-11 (A) 1000p	
C313,413	1-121-748-11 (B) 10	25V elect
C314,414	1-121-916-11 (B) 10	16V elect
C315,415	1-102-115-11 (A) 560p (E, AEP, UK model)	
	1-102-074-11 (A) 0.001 (Canadian model)	
C501	1-121-422-11 (B) 220	25V elect
C502,503	1-121-398-11 (B) 10	25V elect
C504	1-131-218-11 (B) 3.3	35V elect
C505	1-108-377-12 (A) 0.01	100V mylar
C506	1-108-380-12 (A) 0.018	100V mylar
C507	1-129-710-11 (B) 0.0047	630V polyethylene
C508,509	1-141-010-XX (B)	trimmer
C510,511	1-107-037-11 (B) 82p	silvered mica
C512,513	1-107-137-11 (B) 180p	silvered mica
C514,515	1-107-165-11 (B) 56p	silvered mica
C601	1-121-651-11 (B) 10	16V elect
C602	1-108-583-12 (B) 0.015	mylar
C603	1-130-134-11 (B) 0.082	100V polyethylene
C604	1-121-398-11 (B) 10	25V elect
C605	1-121-986-11 (B) 2.2	50V elect
C606	1-121-395-11 (B) 4.7	25V elect
C607	1-121-990-11 (B) 22	16V elect
C608	1-121-395-11 (B) 4.7	25V elect
C701	1-161-019-11 (A) 0.033	ceramic (boundary layer)
C702	1-131-201-11 (B) 22	16V tantalum
C703	1-121-990-11 (B) 22	16V elect
C704	1-121-479-11 (B) 22	16V elect
C705	1-161-025-11 (B) 0.1	ceramic (boundary layer)
C706	1-121-395-11 (A) 4.7	25V elect
C707-710	1-161-013-11 (B) 0.01	ceramic (boundary layer)
C711	1-161-021-11 (A) 0.047	ceramic (boundary layer)
C712	1-161-013-11 (A) 0.01	ceramic (boundary layer)
C713	1-161-019-11 (A) 0.033	ceramic (boundary layer)

Ref. No.	Part No.	Description
C714	1-161-013-11 (A) 0.01	ceramic (boundary layer)
C715	1-161-025-11 (B) 0.1	ceramic (boundary layer)
C716,717	1-121-479-11 (B) 22	16V elect
C718	1-121-352-11 (B) 47	10V elect
C719	1-121-726-11 (B) 0.47	50V elect
C720	1-121-352-11 (B) 47	10V elect
C721	1-121-986-11 (B) 2.2	50V elect
C722	1-121-654-11 (B) 330	25V elect
C723	1-121-975-11 (B) 47	10V elect
C724	1-121-392-11 (B) 3.3	25V elect
C725	1-121-395-11 (B) 4.7	25V elect
C726	1-121-986-11 (B) 2.2	50V elect
C727	1-121-976-11 (B) 100	10V elect
C728,729	1-123-067-11 (C) 2200	25V elect
C730,731	1-123-061-11 (C) 1000	50V elect
C732,733	1-121-944-11 (E) 1000	16V elect
C734,735	1-121-420-11 (B) 220	10V elect
C736	1-121-392-11 (B) 3.3	25V elect
C737	1-121-391-11 (B) 1	50V elect
C738	1-161-013-11 (A) 0.01	ceramic (boundary layer)
C739	1-121-352-11 (B) 47	10V elect
C801,901	1-121-395-11 (A) 4.7	25V elect
C802,902	1-131-215-11 (B) 1	35V tantalum

## RESISTORS

All resistors are in ohms. Common 1/4W carbon resistors are omitted. Refer to the list on page 44 for their part numbers.

R030	1-206-700-11 (B) 33 k	2W metal oxide
R157,257	1-213-141-11 (A) 680	1W metal oxide
R181,281	1-213-137-11 (A) 330	1W metal oxide
R506	1-217-402-11 (B) 180	1/4W fusible
R602	1-244-875-11 (A) 1.2 k	1/4W carbon
R609	1-217-375-11 (B) 1	1/4W fusible

Note: The components identified by shading and mark A are critical for safety. Replace only with part number specified.

Note: Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
R761	1-213-147-11 (A) 2.2 k	1W 5% metal oxide
R767,768	1-217-383-11 (B) 4.7	1/4W 5% fusible
R797	1-217-399-11 (B) 100	1/4W fusible
R798	1-217-301-11	18 5W wirewound
R799	1-217-379-11 (B) 2.2	1/4W 5% fusible
R800	1-206-471-11 (B) 22	2W metal oxide
R801,802	1-217-465-11 (B) 0.37	1W fusible
R803,804	1-217-371-11 (B) 0.47	1/4W fusible
R805	1-244-871-11 (A) 820	1/4W carbon
R811	1-217-383-11 (B) 4.7	1/4W fusible
RV001	1-224-251-XX (C) 4.7 k	adjustable
RV101,201	1-224-645-XX (B) 10 k	adjustable
RV102,202	1-224-646-XX (B) 22 k	adjustable
RV301,401	1-224-561-00 (E) 20 k	variable; REC LEVEL MIC
RV302,402	1-224-736-00 (E) 50 k/50 k	variable; REC LEVEL LINE
RV304,404	1-224-822-00 (D) 20 k/20 k	variable; LINE OUT
RV305,405		HEADPHONE LEVEL
RV601	1-224-491-00 (B) 22 k	adjustable
RV801,901	1-224-252-XX (C) 47 k	adjustable
SWITCHES		
S1	1-552-204-00 (F) Slide	REC/PB
S2	1-552-038-00 (D) Lever-slide	EQ
S3	1-552-039-00 (C) Lever-slide	BIAS
S4	1-552-063-00 (C) Lever-slide	LIMITER
S5	1-552-062-00 (F) Rotary-slide	DOLBY NR
S6	1-514-722-XX (C) Miniature	REC MUTE
S7	1-516-974-00 (C) Slide	TIMER
S8	1-516-974-00 (C) Slide	MEMORY
S10	1-514-722-XX (C) Miniature	cassette
S11	1-514-722-XX (C) Miniature	erasure proof
S12	1-516-855-00 (E) Push button	POWER (E, AEP, UK model)
	1-516-693-00 (E) Push button	POWER (Canadian model)
S14	1-552-064-00 (E) Reed	rotation detect

Note: Les composants identifiés par un trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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TC-K8/K8B

Note: Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
S15	1-552-174-00	(B) Pushbutton, AUTO RESET
S16	1-552-174-00	(B) Pushbutton, MANUAL RESET
JACKS		
J301,401	1-507-533-00	(B) MIC
J302	1-507-523-00	(C) LINE IN
J303,403 J304,404	1-507-433-21	(C) 4p, LINE IN, LINE OUT
J402	1-507-507-00	(C) HEADPHONES
FUSES		
F1	(A) 1-532-066-00	(B) Fuse, T400mA (E, AEP, UK model)
F2-5	(A) 1-532-078-00	(B) Fuse, 1A (E, AEP, UK model)
MISCELLANEOUS		
CN1	1-507-255-00	(C) Socket, 11p; remote control
CN2	(A) 1-509-546-00	(E) Socket, 3p; AC IN (E, AEP, UK model)
	(A) 1-526-528-00	(B) Socket, AC OUTLET (Canadian model)
CN101	1-509-549-00	(B) Connector, record/playback (E, AEP, UK model)
CP1,2 CP701	(A) 1-231-057-31	(B) Encapsulated Component
CP702	(A) 1-231-057-31	(B) Encapsulated Component (E, AEP, UK model)
	(A) 1-231-341-00	(D) Encapsulated Component (Canadian model)
HE	8-825-506-00	(C) Head, erase; EF135-36
HRP	8-825-612-00	(M) Head, record/playback; PF145-3602
M1	8-835-006-00	(L) Motor, capstan; DNF-1001B
M2	8-834-015-01	(K) Motor, reel; DNM-1202A
PL1-9	1-518-115-XX	(B) Lamp, 6V 35 mA
PM1,2	1-454-177-00	(G) Solenoid
PM3	1-454-158-00	(F) Solenoid

Note: The components identified by shading and mark (A) are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
RL101	1-515-294-00	Relay, reed (E, AEP, UK model)
VS	(A) 1-552-026-00	(E) Voltage Selector (E, AEP, UK model)
	(A) 1-519-155-11	(I) Fluorescent Lamp
	(A) 1-533-125-11	(D) Holder, 5p fuse (E, AEP, UK model)
	1-536-401-XX	(B) Plate, terminal
	1-548-514-XX	(H) Counter with Contact Switch (S9)
	(A) 1-551-506-00	(D) Cord, power (Canadian model)

ACCESSORIES & PACKING MATERIALS

Part No.	Description
X-3549-745-0	(C) Cushion Ass'y
X-3701-105-0	(A) Tip Ass'y, head cleaning
1-534-049-31	(E) Cord, connection; RK-74
1-534-487-XX (A)	(C) Cord, power (E, AEP, UK model)
3-429-126-00	Bag, plastic; set (Canadian model)
3-541-250-00	(A) Sticker, loading
3-548-778-00	(B) Cushion (E, AEP, UK model)
3-548-780-00	(C) Cushion, lower; front (E, AEP, UK model)
3-548-781-00	(C) Cushion, lower; rear (E, AEP, UK model)
3-548-788-00	Cushion, lower; front (Canadian model)
3-548-789-00	Cushion, lower; rear (Canadian model)
3-548-790-00	Cushion (Canadian model)
3-555-533-00	(F) Carton (E, AEP, UK model)
3-555-536-00	Carton (Canadian model)
3-770-392-31	Manual, instruction (Canadian model)
3-770-392-52	(H) Manual, instruction (E, AEP, UK model)
4-837-003-00	(C) Bag, plastic; set (E, AEP, UK model)

Note: Les composants identifiés par un trame et une marque (A) sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MODEL IDENTIFICATION

— Specification Label —

TC-K8  
Canadian model

SONY®

TAPECORDER TC-K8

AC 120V60Hz32W

NO.

MADE IN JAPAN

TC-K8B  
E, AEP, UK model

SONY®

TAPECORDER TC-K8B

110 120 220 240V ~ 50/60Hz 35W

NO.

MADE IN JAPAN

Sony Corporation

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78F06100-1  
Printed in Japan